TEST, EVALUATION and INDUSTRIAL SUPPORT BRANCH CODE 914 SHIP SYSTEMS ENGINEERING STATION, PHILADELPHIA

Part 1 – THE SCHEDULE SECTION C TABLE OF CONTENTS

<u>C.1</u>	SCOP	PE OF WORK	1		
	C.1.1	1.1 Performance Work Statement Description			
	C.1.2	Purpose and Structure			
	C.1.3	Technical Exhibits			
	C.1.4	Workload			
	<u> </u>	C.1.4.1 Workload General Perspective			
	C.1.5	Hours of Operation			
	<u> </u>	C.1.5.1 Federal Holidays			
	<u>C.1.6</u>	Service Provider Responsibility	3		
	<u> </u>	C.1.6.1 Changes to Government Directives and Regulations			
		C.1.6.2 Customer Service			
		C.1.6.3 Standards			
		C.1.6.4 Project Management			
		C.1.6.5 Major Activities	4		
		C.1.6.6 Service Provider Personnel Qualifications	4		
		C.1.6.7 Support Services	4		
		C.1.6.7.1 Marine Machinery Services	4		
		C.1.6.7.2 <u>Instrument Services</u>	5		
		C.1.6.7.3 Electrical Services	5		
		C.1.6.7.4 Pipefitting Services	5		
		C.1.6.7.5 Sheetmetal Services	5		
		C.1.6.7.6 Welding Services	5		
		C.1.6.7.7 Boiler Services C.1.6.7.8 Lagging Services	5		
		C.1.6.7.9 Lagging Services C.1.6.7.9 Machine Shop Services			
		C.1.6.7.10 Crane Rigger Qualifications			
		C.1.6.7.11 Crane Operator Qualifications			
		C.1.6.7.12 Qualification Records			
		C.1.6.8 Government Access to Facilities	6		
		C.1.6.9 Call List			
	C.1.7	Prevention and Control of Workplace Hazards	6		
	<u>0.1.7</u>	C.1.7.1 Accident Reporting	7		
		C.1.7.2 Use of Personal Protective Equipment (PPE)	7		
		C.1.7.3 Hazardous Energy Control Program (Lockout/Tagout)	7		
		C.1.7.4 Fines, Penalties, or Other Administrative Sanctions	7		
	<u>C.1.8</u>	<u>SECURITY</u>	7		
		C.1.8.1 Key Control and Lock Combinations	7		
		C.1.8.2 Damage and Loss Reports	7		
		C.1.8.3 Security	8		
		C.1.8.4 Information Security	8		
		C.1.8.5 Security Clearances	8		
	0.4.0	C.1.8.6 Operational Security	8		
	<u>C.1.9</u>	CONDUCT OF PERSONNEL	8		
	0440	C.1.9.1 Personnel Removal	8		
	<u>C.1.10</u>	PROPERTY INVENTORIES	8		
		C.1.10.1 Initial Inventory	9		
	0444	C.1.10.2 Joint Physical Inventory	9		
	<u>C.1.11</u>	Meetings, Conferences and Briefings	9		
	0.4.40	C.1.11.1 Scheduled Meetings GOVERNMENT ACCESS TO DATA AND INFORMATION	9		
	<u>C.1.12</u>		9		
	<u>C.1.13</u>		9		
	0444	C.1.13.1 After-Hours Emergent Requirements	9		
	<u>C.1.14</u>		9		
		C.1.14.1 Customer Feedback	10		
	C 4 4F	C.1.14.2 Quality Control Records Phase-In/Phase-Out of Service Provider Operations	10		
	<u>C.1.15</u>		10		
		C.1.15.1 Phase-in Period	10		
		C.1.15.2 Phase-out Period	10		

	ONS, ACRONYMS AND DEFINITIONS
RNMF	NT FACILITIES, SERVICES and EQUIPMENT
C.3.1.1	Property Accountability
C.3.1.2	Condition of Facilities, Equipment, Furniture and Materials
	C.3.1.2.1 Repair and/or Replacement of Government-furnished Facilities
	C.3.1.2.2 Maintenance of Government-furnished Equipment
	C.3.1.2.3 Replacement of Government-furnished Equipment and Furniture C.3.1.2.4 Repair/Replacement Costs Arising From Other Than Fair Wear and Tear
EACILIT	C.3.1.2.4 Repair/Replacement Costs Arising From Other Than Fair Wear and Tear
	Designation of RDT&E Facilities Maintenance of Working Spaces
<u> </u>	C.3.2.2.1 Cleaning and Trash Disposal
SERVIC	
C.3.3.1	Industrial Hygiene Survey
	Telephone Services
	Water and Plumbing Service
	Steam, Heating and Air Conditioning Electricity
	Electricity Dumpsters
	Hazardous Waste Disposal
	Pest Control
C.3.3.9	Janitorial Services
C.3.3.10	Mail Services
<u>C.3.4.1</u>	Fire Protection and Security
	Emergency Ambulance Transport Management Information
<u>C.3.4.3</u>	Management Information C.3.4.3.1 Testsite Training
GOVER	NMENT-DIRECTED TRAVEL/TRAINING
	<u>Telephones</u>
C.3.6.2	Furniture
PETRO	LEUM, OIL AND LUBRICANTS (POL)
Persona	al Protective Equipment (PPE)
ICE DD	OVIDED ELIDNICHED CHIDDLIEC AND EQUIDMENT
OFNED	OVIDER FURNISHED SUPPLIES AND EQUIPMENT
_	
	MENT OPERATION
<u>C.4.2.1</u>	Anchiary Maintenance Materials
ICE PR	OVIDER'S DUTIES and REQUIREMENTS
CONST	RUCT, OPERATE, and MAINTAIN TEST SITES
C.5.1.1	Test Site Construction
<u>C.5.1.2</u>	Operations / Watch Standing Requirements
0540	C.5.1.2.1 Deviations from the EOSS
<u>U.5.1.3</u>	MAINTENANCE C.5.1.3.1 Maintenance Standard
	C.5.1.3.1 Maintenance Standard C.5.1.3.2 Preventive Maintenance Services
	C.5.1.3.3 Corrective Maintenance
	C.5.1.3.4 Maintenance Reporting Requirements
	C.5.1.3.5 Spare Parts Inventory
C.5.1.4	Maintenance of Machine Shop Equipment
	TRIAL SUPPORT SERVICES
	Planning and Estimating
	Extreme Weather Operations/Equipment Protection
	Kitting Support for Ship Alterations and Machinery Alterations Fuel Systems and Operations
<u>U.U.Z.4</u>	Fuel Systems and Operations C.5.2.4.2 Waste Fuel Oil Removal
	C.5.2.3.3 Oil Management - 633 Complex
	C.5.2.3.4 Oil Management – 77H Complex
	<u>C.5.2.3.5</u> Fuel Oil Tank Plans, Inventories and Reports
<u>C.5.2.4</u>	C.5.2.3.5 Fuel Oil Tank Plans, Inventories and Reports WEIGHT HANDLING EQUIPMENT (WHE) SERVICES C.5.2.4.1 Crane Operations
	ENER C.3.1.1 C.3.1.2 FACILIT C.3.2.1 C.3.2.2 SERVIC C.3.3.1 C.3.3.2 C.3.3.3 C.3.3.6 C.3.3.7 C.3.3.8 C.3.3.9 C.3.3.10 Public S C.3.4.1 C.3.4.2 C.3.4.2 C.3.4.3 GOVER EQUIPN C.3.6.1 C.3.6.2 PETRO Persona ICE PRI C.4.2.1 ICE PRI C.4.2.1 ICE PRI C.5.1.1 C.5.1.2 C.5.1.4

12/22/03 C-ii

	<u>C.5.2.4.2</u>	Crane Certification Records/Proof Test	20
	<u>C.5.2.4.3</u>	Maintenance of WHE Equipment Other Than Cranes	20
	<u>C.5.2.4.4</u>	Inspection of Rigging Equipment	20
	C.5.2.4.5	Storage	20
	C.5.2.4.6	<u>Disposal</u>	20
<u>C.6</u>	RECORDS, REPORTS	and SUBMITTALS	20
	C.6.1 Reports		20

12/22/03 C-iii

PART I – THE SCHEDULE SECTION C DESCRIPTION, SPECIFICATIONS, STATEMENT OF WORK

C.1 SCOPE OF WORK

C.1.1 Performance Work Statement Description

This Performance Work Statement (PWS) covers the provision of specified **research**, **development**, **test and evaluation (RDT&E) support services** by the Test, Evaluation and Industrial Support Branch (hereinafter referred to as Code 914) to the Ship Systems Engineering Station, Philadelphia, Carderock Division of the Naval Surface Warfare Center (hereinafter referred to as NAVSSES). NAVSSES is located on the former Philadelphia Naval Shipyard, now known as the Philadelphia Naval Business Center. The operational areas include the NAVSSES and working aboard naval vessels worldwide. The preponderance of operations will occur in the NAVSSES Building 633 Complex, Building 77H Complex and Building 1000.

Throughout this PWS, the term "Service Provider" (SP) is used. The SP is the entity performing the requirements of this contract. Depending on the results of the OMB Circular A-76 public-private competition, the SP will either be a commercial contractor or the Government's Most Efficient Organization (MEO).

It is the intent of the Government to obtain the specified Research, Development, Test, and Evaluation (RDT&E) support services required by this PWS by means of a Time and Materials (T&M)/Indefinite Delivery/Indefinite Quantity (ID/IQ) contract.

The SP shall provide all services, materials, supplies, supervision, labor and equipment, except that specified herein as government-furnished, to perform the specified RDT&E support requirements. The SP shall provide these support services in accordance with all terms, conditions and specifications stated herein. The SP shall assume total responsibility for all requirements stated herein on the commencement date of the first performance period.

C.1.2 Purpose and Structure

The purpose of this PWS is to describe the performance requirements for RDT&E support services operations within Code 914 of the NAVSSES. The SP shall provide services that include but are not limited to:

- C.5.1 Construct, Operate and Maintain Test Sites
- C.5.2 Industrial Support Services
- C.5.3 In-Service Engineering Support

C.1.3 Technical Exhibits

Technical Exhibits are referenced throughout the solicitation. Technical exhibits for Section C have a four character alphanumeric beginning with a "J". The second character identifies the major paragraph PWS Section C where the technical exhibit is first referenced (i.e. J.1) and then to a sequence number within that section (i.e. J.1-01). For example, Technical Exhibit J.1-01, Historical Workload, is the first technical exhibit referenced in section C.1. The first time to which a document or reference is referred, the technical exhibit number will be shown in parentheses (i.e., Performance

Requirements Summary – Technical Exhibit J.1-02); subsequent references to the document will contain only the technical exhibit number (i.e. TE J.1-02).

C.1.4 Workload

Projected workload data is presented in Technical Exhibit J.1-01. The workload information displayed in the text and in technical exhibits is based on annual data, where available, or extrapolated to represent estimated annual workload, where less than one year's data was available. This workload is provided to assist Offerors in proposal preparation by showing trends and percentages of work in each area and shall not be a limiting factor on the SP's obligation to perform all services described in this document to the required level of effort.

C.1.4.1 Workload General Perspective

NAVSSES Code 914 provides a technically skilled workforce to accomplish the RDT&E support requirements (as contained in this PWS) of the NAVSSES Engineering Departments. The preponderance of the workload is accomplished at the NAVSSES.

Code 914 has three overarching tasks: (1) Code 914 constructs, operates and maintains Hull, Mechanical and Electrical (HM&E) machinery systems and equipment such as gas turbine engines, diesel engines, shipboard boiler systems, electrical systems and control systems. Operational and maintenance procedures are guided by technical test site Points Of Contact (POC); (2) Code 914 provides RDT&E support for project planning, testing and evaluation support and industrial support services to all NAVSSES engineering departments. Most of the time, this will entail conducting specified tests at NAVSSES test sites; (3) Code 914 also provides In-Service Engineering support for the Gas Turbine Program. Casualty Repair and Kitting, and installs and/or removes developmental equipment and parts aboard U.S. Navy ships.

The work at the NAVSSES is centered around three (3) building work areas, Building 1000, Building 633 Complex with its 15 supporting facilities/buildings and Building 77H Complex with its 15 supporting facilities/buildings. As used in this PWS, the terms Building 633 Complex and Building 77H Complex mean that the work location may be in any of the group of facilities/buildings in that complex. A listing of all Government-furnished facilities is found in Technical Exhibit J.3-01.

C.1.5 Hours of Operation

The core working hours are 0730 to 1600, Monday through Friday excluding the Federal holidays designated in paragraph C.1.5.1. These hours are subject to adjustment by the Government.

C.1.5.1 Federal Holidays

The following is a list of holidays observed by the federal Government.

HOLIDAY

DAY/DATE OBSERVED

New Year's Day 1 January

Martin Luther King Jr. Day

Third Monday in January

Presidents Day

Third Monday in February

Memorial Day Last Monday in May

Independence Day 4 July

Labor Day First Monday in September
Columbus Day Second Monday in October

Veteran's Day 11 November

Thanksgiving Day Fourth Thursday in November

Christmas Day 25 December

These ten (10) holidays are the only holidays that will be recognized during the performance of this PWS. In the event any of the above holidays occur on a Saturday or a Sunday, then such holiday shall be observed by the SP as defined in Title 5 United States Code, Section 6103.

C.1.6 Service Provider Responsibility

The SP shall be responsible for the overall management of the provision of the RDT&E support services specified in this contract. The SP's work and responsibility shall include all management, administration (e.g. budget tracking, mail service, travel arrangements, etc.), supervision, labor, materials, supplies, tools and equipment (except that specified as Government-furnished in Section C.3).

C.1.6.1 Changes to Government Directives and Regulations

The SP shall anticipate that changes to the laws, regulations, ordinances, directives, regulations and instructions referenced in the Technical Library will occur frequently. The SP shall accomplish all PWS requirements IAW directives that are current. The SP shall obtain current operations and maintenance directives only from the Project Managers/Test Engineers or the Engineering Operating Sequencing System (EOSS) Office located in Building 4.

C.1.6.2 Customer Service

The SP shall respond to all inquiries, requests for assistance and correspondence received from individuals and/or activities via walk-in, telephone, E-mail, electronic messages, correspondence or facsimile within two (2) working days. Some emergent situations may require a response within one (1) hour. Historically, this occurs approximately 52 times per year.

C.1.6.3 Standards

The SP shall ensure that all work meets the standards specified in this PWS, the Performance Requirements Summary (PRS), (Technical Exhibit J.1-02), and in

applicable referenced documents contained in the Technical Library (Technical Exhibit J.1-03).

C.1.6.4 Project Management

The SP shall perform project management and shall provide a Project Manager who shall be on-site during core working hours. The Project Manager shall conduct overall management coordination and shall be the central point of contact with the Government for performance of all work under this PWS. A SP employee shall be designated to act for the Project Manager when work is being performed outside of normal working hours, or during the manager's absence. The Project Manager and any individuals designated to act in that capacity shall have full authority as the SP for prompt action on matters pertaining to compliance with this PWS.

C.1.6.5 Major Activities

The SP shall manage the following activities:

- Construction, operation and maintenance of specified test sites
- Provide various petroleum fuels to the test sites, to include managing 17 fuel storage tanks
- Provide project planning, testing and evaluation support, and industrial support services to the NAVSSES engineering departments
- Operate Class I, II and non-cab operated Class III cranes

C.1.6.6 Service Provider Personnel Qualifications

The SP shall provide qualified supervisory, technical, administrative and clerical personnel to accomplish all work and services required by this PWS within specified time frames. This provision shall apply notwithstanding past historical records, estimates of personnel needed, or any minimum levels established elsewhere in this PWS. SP employees shall be trained, qualified, certified or licensed as required in this PWS prior to starting work. See Section C.3.4.3.1 for new requirements. The SP shall maintain records of training qualifications, certifications and licenses. The SP shall maintain the workforce in such a manner as to ensure that the employees remain fully qualified to perform the work assigned.

C.1.6.7 Support Services

As directed by the DGR, the SP shall provide various support services at the journeyman level (journeyman level shall be defined by the industry standards) in support of the test sites, components, equipment and systems listed in Technical Exhibit J.5-01.

C.1.6.7.1 Marine Machinery Services

The SP shall provide journeyman level personnel to perform a variety of functions in support of RDT&E construction, assembly and disassembly, operation, inspection and maintenance of all test sites, components, equipment and systems listed in Technical Exhibit J.5-01. This work includes a wide variety of trade skill functions that support this work. In addition to the work described above, Marine Machinery services shall be utilized to provide operational support for the familiarization of Navy and other DOD personnel on various shipboard systems.

C.1.6.7.2 Instrument Services

The SP shall provide journeyman level personnel to develop/build and install instruments and controllers, inspect, test, modify, repair and adjust indicating, recording, telemetry, fiber optics, wiring, data acquisition systems and controlling instruments. These instruments are used to measure and control variables, such as pressure, flow, temperature, motion, force and chemical composition IAW NAVSEA OD 45845 (Metrology Requirements List, electronic only), NAVSSES Instrument Standards (16th edition) and NAVSEA S9300-A6-GYD-010 (Electrical Workmanship Inspection Guide for Surface Ships and Submarines).

C.1.6.7.3 Electrical Services

The SP shall provide journeyman level personnel to perform a variety of electrical trade functions such as the layout, installation, operation, maintenance or repair of equipment for the generation, distribution or utilization of electric energy (high, medium or low voltage) support of the test sites, components, equipment and systems listed in Technical Exhibit J.5-01.

At the direction of the DGR, the SP shall install or repair any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems or other transmission equipment.

C.1.6.7.4 Pipefitting Services

The SP shall provide journeyman level personnel to perform a variety of pipefitting trade functions such as the layout, fabrication, installation, hydrostatic testing and modification of high and low pressure piping systems and equipment. Maintain and repair various types of piping systems and equipment listed in Technical Exhibit J.5-01.

C.1.6.7.5 Sheetmetal Services

The SP shall provide journeyman level personnel to perform a variety of sheet metal/steel trade functions such as the layout, fabrication, installation, testing and modification of systems and equipment as listed in Technical Exhibit J.5-01 (examples may include platforms, foundations, handrails, etc.).

C.1.6.7.6 Welding Services

The SP shall provide journeyman level personnel to perform a variety of welding trade functions (e.g. Tig, Mig, P-1, P-2) to support such operations as the layout, fabrication, installation, pre-heating, stress-relief, Non-Destructive Testing/Dye Penetrate testing and modification of welding procedures/equipment in support of the systems and equipment as listed in Technical Exhibit J.5-01.

C.1.6.7.7 Boiler Services

The SP shall provide journeyman level personnel to operate/tend one or more marine boilers to produce steam or high-temperature water for use in an established test site. Both internally and externally, maintain for operation/lay-up, modify and repair various types of boiler plants, systems and equipment listed in Technical Exhibit J.5-01.

C.1.6.7.8 Lagging Services

The SP shall provide journeyman level personnel to perform layout, fabrication and installation of thermal and sound insulating material support services for the test sites, equipment, components and piping systems listed in Technical Exhibit J.5-01.

C.1.6.7.9 Machine Shop Services

The SP shall provide journeyman level personnel to manufacture and modify items IAW NAVSSES technical code drawings and specifications. Government Provided Machine Shop Equipment is listed in Technical Exhibit J.5-02. These services include, but are not limited to, planned and on-going test site construction, operation and maintenance for the test sites, equipment, components and systems listed in Technical Exhibit J.5-01. Machining material may consist of all metals (ferrous and non-ferrous), fiberglass, Teflon, all plastics and other materials specified by the Government.

C.1.6.7.10 Crane Rigger Qualifications

The SP's crane riggers shall meet all requirements of NAVFAC Publication P-307.

C.1.6.7.11 Crane Operator Qualifications

The SP's crane operators shall meet all requirements of NAVFAC Publication P-307.

C.1.6.7.12 Qualification Records

The SP shall maintain individual licensing and/or training qualification records for each of their crane operators, crane riggers and rigging gear inspectors IAW NAVFAC Publication P-307, Sections 8 and 13.

C.1.6.8 Government Access to Facilities

The SP shall allow Government representatives unlimited access during operational hours and after hours when required for emergent situations. The SP may, at their own discretion, provide escorts to accompany Government representatives while in SP-operated spaces. In all such cases, the SP shall be notified of entry and circumstances requiring entry at the earliest practical time.

C.1.6.9 Call List

The SP shall provide an ordered call list in case of emergencies and when Government access to the facilities is required after normal working hours. This call list shall contain the names and telephone numbers of those individuals who can perform and are familiar with all the duties as described in this PWS.

C.1.7 Prevention and Control of Workplace Hazards

Safety is an important concern in any work environment. In the heavy industrial environment of Code 914, safety may be a matter of life and death. Within 30 days after contract award, the SP shall develop, submit for DGR approval, implement and maintain a Safety and Environmental Program and accomplish all requirements of this PWS in complete accordance with NAVSSESINST 5100.14 (series) Environmental and Fire Compliance.

All SP facilities and work areas shall be subject to routine Government inspections without notification. A report of violations found during inspections will be provided in

writing to the SP's Project Manager (PM). The PM shall provide written details of corrective action taken to the DGR within ten (10) workdays after receipt of notification of fire, safety and/or environmental violations.

The SP shall properly store and stage for disposal all hazardous waste generated IAW 49 CFR.

C.1.7.1 Accident Reporting

The SP shall immediately provide verbal notification to the DGR of any accident resulting in serious injury or death to anyone while performing under this PWS. Follow-up written documentation will be forwarded as soon as it becomes available.

C.1.7.2 Use of Personal Protective Equipment (PPE)

In all areas where SP employees work or transit, the SP shall acquire and direct the use of safety equipment, personal protective equipment, and devices necessary to protect employees as determined by the Government's Occupational Exposure Assessment (OEA) or Industrial Hygiene Survey.

C.1.7.3 Hazardous Energy Control Program (Lockout/Tagout)

The SP shall develop and submit for DGR approval, Lockout/Tag out instructions which comply with NAVSSESINST 5100.14 (Series) Hazardous Energy Control Program consisting of energy control procedures, employee training and periodic inspections. The program will ensure that before servicing or maintenance on any equipment where the unexpected energizing, start-up or release of stored energy could occur and cause injury, the equipment shall be isolated from the energy source and rendered inoperative.

C.1.7.4 Fines, Penalties, or Other Administrative Sanctions

The costs of all fines, penalties and administrative sanctions levied by the EPA, OSHA, or any other governmental agency because of negligence, acts of omission, acts of commission or any other fault of the SP in the performance of this PWS shall be borne by the SP.

C.1.8 SECURITY

The SP shall be responsible for the care of Government property and documents under the SP's custody or control.

C.1.8.1 Key Control and Lock Combinations

The SP shall establish and implement a method to ensure that all keys issued to its personnel are secured and are not used by unauthorized persons. In the event any keys are lost or duplicated, the DGR will be notified immediately. The SP shall reimburse the Government for the replacement or re-keying of locks. In the event a master key is lost or duplicated, the Government shall replace all affected locks with the total cost reimbursed by the SP.

C.1.8.2 Damage and Loss Reports

When Government property is damaged, lost or pilfered while in the care, custody or possession of the SP or their employees, agents or subcontractors, an initial report will

be passed immediately to the DGR. A full report of the facts and the extent of damage or loss will follow the initial report within twenty-four (24) hours.

C.1.8.3 Security

Personnel hired directly or indirectly by the SP for work under this PWS shall have and display a current identification card issued by authorized NAVSSES security personnel. Personnel shall comply with NAVSSES security regulations. Those not complying with these regulations will not be allowed to enter the facility. When an employee leaves the SP's employment, the employee's badge shall be returned as prescribed by NAVSSES security requirements.

C.1.8.4 Information Security

The SP shall safeguard information of a sensitive nature in accordance with Security Program Manual CARDEROCKDIVINST 5500.4 (Technical Library). The SP shall maintain and handle classified material in accordance with the technical library.

C.1.8.5 Security Clearances

The SP shall obtain a CONFIDENTIAL security clearance for all SP employees within 60 days of contract start date.

C.1.8.6 Operational Security

The SP shall notify the DGR immediately of any situation that might pose a risk to Government personnel, facilities or property.

C.1.9 CONDUCT OF PERSONNEL

The SP shall be responsible for the performance and conduct of all SP employees, agents and sub-contractors at all times. Personnel employed by the SP in the performance of this contract, or any representative of the provider entering the facility, shall abide by the security regulations listed in the contract and shall be subject to such checks by the Government as deemed necessary. The SP shall not employ for performance under this contract any person whose employment would result in a conflict of interest with the Government's standards of conduct.

C.1.9.1 Personnel Removal

Government rules, regulations, laws, directives and requirements which are issued during the contract term relating to law and order, administration, and security shall be applicable to all SP employees or representatives who enter any facility. Violation of such rules, regulations, laws, directives or requirements may result in the command removing personnel from the facility. Said removal to be at the sole discretion of the Government upon determination, by an authorized Government official, that such action is necessary in the interests of the Government. Removal of employees does not relieve the SP from the responsibility for the work defined in this contract.

C.1.10 PROPERTY INVENTORIES

The labor cost for SP personnel engaged in conducting property inventories shall be borne by the SP.

C.1.10.1 Initial Inventory

The SP shall participate with its predecessor in a joint wall-to-wall inventory of all facilities, equipment and property for which the SP assumes responsibility including all SP working areas.

C.1.10.2 Joint Physical Inventory

The SP shall furnish the required labor to conduct an annual joint inventory (with the Government) of the property in all areas under SP's control. The Government will give at least two (2) working days advance notice of the inventory to the SP.

C.1.11 Meetings, Conferences and Briefings

The SP shall participate in, and furnish input to scheduled and unscheduled meetings, conferences and briefings that relate to the functions and services as required by the Government.

C.1.11.1 Scheduled Meetings

The SP shall provide senior representation to RDT&E-related working groups and meetings and/or other meetings as directed by the DGR (approximately two (2) per month). All costs of attending such meetings shall be borne by the SP.

C.1.12 GOVERNMENT ACCESS TO DATA AND INFORMATION

The SP shall ensure that all SP-generated records, reports, files and other documentation are made available to the Government during the performance of this PWS. The SP shall obtain DGR approval before releasing any information that has been generated, stored or archived related to this PWS to the SP's corporate or other off-site offices, to other Government contractors, or to private parties. All work products become government property.

C.1.13 CONTINGENCIES

The Government establishes contingency plans to support national emergencies. Within 90 days after contract award, the SP shall develop, submit for DGR approval, implement and maintain, as necessary, plans and procedures to meet the Government's requirements for emergencies. The SP shall identify mission essential personnel to meet critical requirements during increased Force Protection Condition (FPCON) facility access limitations and provide a list of these personnel to the DGR.

C.1.13.1 After-Hours Emergent Requirements

The SP shall have sufficient personnel on call to respond to after-hours PWS requirements within two (2) hours of notification by the DGR. Based on historical experience, the SP shall respond to two (2) after-hours service requirements per month; the average duration of each requirement is eight (8) man-hours.

C.1.14 QUALITY CONTROL

The Government will conduct systematic surveillance of all aspects of this PWS. However, the Government's quality assurance program is not a substitute for an internal quality control program that the SP shall establish. The Government expects the SP to detect and correct deficiencies before products and services are delivered to customers.

The Government may change its quality assurance procedures and the frequency of inspections at its discretion in order to ensure contract compliance by the SP.

C.1.14.1 Customer Feedback

The Government considers customer feedback to be an essential element of quality control. The SP shall develop, and transmit to each customer, a customer feedback survey form that may be transmitted (by the customer) via electronic mail to the SP's quality control manager and to the Government's Quality Assurance Evaluator (QAE).

C.1.14.2 Quality Control Records

The SP shall produce, maintain for the life of this contract and provide for audit all quality control records and reports and all records associated with the investigation and resolution of customer complaints. All work products become government property.

C.1.15 Phase-In/Phase-Out of Service Provider Operations

C.1.15.1 Phase-in Period

The contract phase-in period is defined as the period between contract award and the full performance date. The contract phase-in period shall be a maximum of 60 calendar days.

- Employee recruitment
- Phase-in of key personnel
- Establishment of a project management office
- Obtaining all required certifications and clearances, including personnel security clearances
- Interface with NAVSSES technical departments and NSWCCD during phase-in to include meetings or status reports as considered necessary
- Equipment leases/acquisitions
- Supervision of phase-in
- Manning of phase-in
- Development and dissemination of operating instructions, procedures and control directives
- Development of required deliverables
- Initial training
- Participation and transfer of Government furnished property inventories. All costs incurred during the phase-in period shall be borne by the SP.

C.1.15.2 Phase-out Period

The SP, if a contractor, shall develop a phase-out plan to effect a smooth and orderly transfer of contract responsibility to a successor. The plan will fully describe how the SP shall, at a minimum, approach the following issues:

- Employee notification
- Retention of key personnel
- Turnover of work in progress, inventories, Government property
- Removal of SP property
- Data and information transfer

- Any other actions necessary to ensure continuity of operations

The SP's phase-out plan shall, at a minimum, require an inventory by the incumbent and the Government before conducting an inventory between the incumbent and the successor. The plan shall, at a minimum, also include:

- Reconciliation of all property accounts, requisitions, and work in progress
- Turn-in of excess property
- Clean-up of SP work areas
- Provisions for training of the successor's personnel on Government-furnished automated information systems, specialized equipment, and/or utilities systems used in performance of this contract

The SP shall provide the phase-out plan to the DGR within 30 days of request.

C.1.15.3 Removal of Service Provider Equipment and Supplies

Within five (5) working days after the expiration of the contract the SP shall remove from the premises all equipment and supplies that belong to the SP. If removal has not been accomplished within five (5) working days, the Government will remove them at the SP's expense.

C.1.16 Reimbursement for Service Provider Purchases

This PWS allows for reimbursement of SP purchases to accomplish certain requirements, with the circumstances for reimbursement described in applicable PWS sections. The SP shall first obtain approval from the DGR for all reimbursable purchases of \$2,500 or more. Reimbursable purchases less than \$2,500 do not require prior approval. The SP shall submit completed invoices to the DGR for processing and reimbursement.

C.2 ABBREVIATIONS, ACRONYMS AND DEFINITIONS

Abbreviations, acronyms and definitions used in this PWS are listed in Technical Exhibit J.2-01.

C.3 GOVERNMENT FACILITIES, SERVICES and EQUIPMENT

C.3.1 GENERAL

All facilities, services, equipment and supplies to be furnished by the Government for the SP's use during the performance of this PWS are specified in paragraphs C.3.2 through C.3.5 and Technical Exhibits J.3-01 through J.3-04.

C.3.1.1 Property Accountability

For any supplies, material or equipment obtained from the Government, the SP shall maintain sufficient records to establish accountability for the Government's property. The SP shall be responsible for any property lost, damaged or destroyed. The SP shall provide the DGR a semi-annual report of the status of Government-furnished property.

C.3.1.2 Condition of Facilities, Equipment, Furniture and Materials

All Government-furnished facilities, equipment and materials will be provided in "as is" condition. Should the SP decline to accept government-furnished equipment and/or

materials, the SP shall provide sufficient equipment and/or materials to accomplish all requirements of this contract at the SP's expense.

C.3.1.2.1 Repair and/or Replacement of Government-furnished Facilities

The costs of Preventive Maintenance, Corrective Maintenance (repairs), and/or replacement of Government-furnished facilities will be borne by the Government provided that the repairs or replacement are required due to fair wear and tear.

C.3.1.2.2 Maintenance of Government-furnished Equipment

All costs of parts for the Preventive Maintenance services and Corrective Maintenance of Government-furnished equipment will be borne by the Government provided that the parts are required due to fair wear and tear.

C.3.1.2.2.1 Tools

The Government will furnish the tool kits and individual tools shown at Technical Exhibit C.J3-03. If required, tools will be calibrated as noted in Technical Exhibit C.J3-03

C.3.1.2.2.2 Bench Stock

The Government will furnish the bench stock on hand (determined by a joint inventory signed by both the Government and the SP) the day prior to commencement of the contract. The SP, for the duration of this contract, shall maintain adequate levels of bench stock to properly perform the requirements of this PWS.

C.3.1.2.3 Replacement of Government-furnished Equipment and Furniture

The costs of replacement of Government-furnished equipment and furniture will be reimbursed by the Government through the contract.

C.3.1.2.4 Repair/Replacement Costs Arising From Other Than Fair Wear and Tear

The labor and materials costs for the accomplishment of any preventive maintenance services, corrective maintenance, or replacement of Government-provided facilities, equipment, furniture and/or materials, which are due to other than fair wear and tear, shall be borne by the SP.

C.3.2 FACILITIES

The Government will provide space for administrative offices and operational work areas necessary for the performance of this PWS.

C.3.2.1 Designation of RDT&E Facilities

NAVSSES Building 633 Complex, NAVSSES Building 77H Complex, and NAVSSES Building 1000 and/or any other NAVSSES building(s) designated by the DGR will be used for the provision of the RDT&E support functions required by this contract.

C.3.2.2 Maintenance of Working Spaces

The SP shall maintain Government-furnished administrative offices and operational work locations in a clean and orderly condition.

C.3.2.2.1 Cleaning and Trash Disposal

The SP shall ensure that all work areas are cleaned after operations and that all trash and debris that has accumulated in the work or storage areas, is picked up and placed in trash receptacles, dumpsters or appropriate storage spaces prior to the close of business each working day.

C.3.3 SERVICES

C.3.3.1 Industrial Hygiene Survey

The Government will conduct an annual Industrial Hygiene/Occupational Exposure Assessment (OEA) of each NAVSSES workplace and provide reports concerning SP facilities/work areas to the SP.

C.3.3.2 Telephone Services

The Government will provide telephone lines for use on official business only. The Government will provide local and Defense Switched Network (DSN) service for those lines. All costs of commercial long distance telephone calls that are not for official business shall be borne by the SP.

C.3.3.3 Water and Plumbing Service

The Government will provide all potable water, sewer and plumbing services.

C.3.3.4 Steam, Heating and Air Conditioning

The Government will provide all steam and will service any existing steam plant, integrated heating system, air conditioning system and hot water heater.

C.3.3.5 Electricity

The Government will provide all electricity.

C.3.3.6 Dumpsters

The Government will provide general trash dumpster(s) and will provide removal/emptying services.

C.3.3.7 Hazardous Waste Disposal

The Government will provide for the disposal of any hazardous waste accumulated in the execution of this PWS as specified in accordance with NAVSSESINST 4110.5

C.3.3.8 Pest Control

The Government will provide all pest control services.

C.3.3.9 Janitorial Services

The Government will provide scheduled custodial services for Government-furnished facilities. Service provided by existing custodial contracts typically includes floor care, servicing of restrooms and similar light housekeeping services.

C.3.3.10 Mail Services

The Government will provide routine intra-office mail services required to support official Government business specified in this PWS.

C.3.4 Public Safety

C.3.4.1 Fire Protection and Security

For all NAVSSES facilities, the Government will provide 24-hour security police and fire protection to the extent necessary to ensure security and safety. Current emergency telephone numbers will be provided to the SP prior to full performance start date.

C.3.4.2 Emergency Ambulance Transport

The Government will arrange for the emergency ambulance transport of SP staff that require such transport because of an accident or illness that occurs while in or on Government facilities. The SP employee will be transported to the nearest medical facility capable of caring for the condition.

C.3.4.3 Management Information

The Government will provide:

- Plans, design specifications, technical drawings, normal and test operating parameters and any other technical detail needed for the construction/operation of the test sites
- Master Test Schedules
- Access to a technical library containing current hard copy or electronic publications required for the performance of the SP's construction, operations and maintenance duties regarding the test sites

C.3.4.3.1 Testsite Training

During the contract performance period, the Government shall provide training on new systems and system enhancements not in place at the time of contract start date to a limited number of SP personnel who are expected to provide training to remaining SP personnel. Prior to training, the new systems/enhancements must be presented to, and approved by, the Mission Readiness Panel (MRP) in accordance with NAVSSESINST 3900.3 (series). This training may be on-site at the NAVSSES or at an off-site location to be determined by the DGR.

C.3.5 GOVERNMENT-DIRECTED TRAVEL/TRAINING

The costs of any Government-directed travel and training shall be reimbursed by the Government through the contract.

C.3.6 EQUIPMENT

The Government will provide complete engineering test sites, fuel storage tanks, information technology equipment and other equipment to be used in the performance of this PWS. Individual equipment items are listed in Technical Exhibit J.3-02 and Machine Shop Equipment is listed in Technical Exhibit J.5-02.

C.3.6.1 Telephones

The Government will furnish telephones for the Building 633 and 77H complexes and Building 1000.

C.3.6.2 Furniture

The Government will provide all furniture listed in Technical Exhibit J.3-04.

C.3.7 PETROLEUM, OIL AND LUBRICANTS (POL)

The cost of all POL products required for the operation and maintenance of the test sites and government-furnished equipment shall be the responsibility of the Government.

C.3.8 Personal Protective Equipment (PPE)

The cost of all PPE required as a result of the Government's Occupational Exposure Assessment will be reimbursed by the Government through the contract.

C.4 SERVICE PROVIDER FURNISHED SUPPLIES AND EQUIPMENT

C.4.1 GENERAL

Any facilities, services, materials, items of supply and/or equipment required to execute the requirements of this PWS and not specifically listed as provided by the Government in paragraphs C.3.1 through C.3.1.2.4 and Technical Exhibits J.3-01 through J.3.04 will be provided by and at the expense of the SP.

C.4.2 EQUIPMENT OPERATION

All SP equipment operated at the site shall be maintained in proper working order and operated in compliance with all Federal, state, DOD and Navy regulations and OEM manufacturer specifications.

C.4.2.1 Ancillary Maintenance Materials

The cost of ancillary materials, including but not limited to bench stocks, rags, hand cleaner, Stay-Dry and similar items necessary for the accomplishment of Preventive Maintenance services and Corrective Maintenance of Government-furnished equipment will be borne by the SP.

C.5 SERVICE PROVIDER'S DUTIES and REQUIREMENTS

The SP shall provide specified research, development; test and evaluation (RDT&E) support services.

C.5.1 CONSTRUCT, OPERATE and MAINTAIN TEST SITES

C.5.1.1 Test Site Construction

As directed by the DGR, the SP shall provide support services to erect/disassemble/modify/alter test sites in accordance with the standards contained herein. Blueprints of recent construction projects are included in the Technical Library.

C.5.1.2 Operations / Watch Standing Requirements

The SP shall operate prototype shipboard gas turbine propulsion systems, 600 and 1200 PSI marine steam propulsion systems, shipboard elevator systems, and other test sites installed at NAVSSES in accordance with the applicable Engineering Operations Sequencing System (EOSS) (Technical Exhibit J.1-03, Technical Library). Specific test sites and systems and support equipment/ facilities to be operated are shown in

Technical Exhibit J.5-01. When operating any test site/system, the SP shall have, as a minimum, the number and type of personnel filling each position specified in the applicable EOSS (Technical Exhibit J.1-03, Technical Library).

C.5.1.2.1 Deviations from the EOSS

The SP shall not deviate from the operating procedures and parameters specified in the applicable EOSS unless authorized to do so, in writing, by the DGR. At the conclusion of the test, the SP shall restore the test site equipment back to the specified EOSS parameters and/or operating condition.

C.5.1.3 MAINTENANCE

As directed by the DGR, the SP shall perform preventive maintenance and corrective maintenance services on the specified test sites, component systems, and support equipment in accordance with the maintenance requirements of the specific test site and using only authorized repair parts.

C.5.1.3.1 Maintenance Standard

The SP shall maintain all test sites and equipment listed in Technical Exhibits J.5-01 and J.3-02 to meet all requirements at the time and date specified by the requesting NAVSSES engineer in accordance with OPNAVINST 4790.4C as modified by the supporting Project Manager/Test Engineer (PM/TE).

C.5.1.3.2 Preventive Maintenance Services

The SP shall perform Preventive Maintenance (PM) services on the specific systems and support equipment/facilities shown in Technical Exhibit (J.5-01) in accordance with direction from PM/TE.

C.5.1.3.2.1 Frequency of PM Services

The SP shall perform PM services for each piece of equipment under the direction of the PM/TE.

C.5.1.3.3 Corrective Maintenance

The SP shall perform corrective maintenance services on the specific test sites and support equipment/facilities shown in Technical Exhibit (J.5-01) in accordance with the applicable NAVSHIP (and OEM/Commercial) technical manual(s)/guidance provided by the Project Managers or Test Engineers.

C.5.1.3.4 Maintenance Reporting Requirements

The SP shall report all preventive and corrective maintenance in accordance with OPNAVINST 4790.4C (Technical Library). Technical Exhibit J.1-03 contains a list of currently required reports.

C.5.1.3.5 Spare Parts Inventory

The SP shall procure, control and store sufficient spare parts to maintain all equipment/sites at the required operational readiness level. The cost of these parts will be reimbursed by the Government through the contract.

C.5.1.4 Maintenance of Machine Shop Equipment

The SP shall perform Preventive Maintenance and minor repairs to Machine Shop equipment to ensure that the equipment is operationally ready to meet the product and delivery requirements of the requesting NAVSSES engineering department. Machine Shop equipment to be maintained is listed in Technical Exhibit J.5-02.

C.5.2 INDUSTRIAL SUPPORT SERVICES

C.5.2.1 Planning and Estimating

The SP shall provide planning and estimating (including materials) support and provide estimate(s) for construction, operation and maintenance of the following:

- Land based test sites
- Intakes and exhaust stacks, baffles, diffusers and plenum chambers
- All types of high and low pressure piping systems, vessels and internal piping
- Hulls, bulkheads, voids, main and auxiliary machinery space modifications/alterations on surface ships
- Submarine hull and internal modifications/alterations
- Foundations for test sites, equipment and machinery
- Fuel Testing

C.5.2.2 Extreme Weather Operations/Equipment Protection

When directed by the DGR, the SP shall provide 24-hour on-site protection against freezing weather damage to fuel lines and systems, steam lines, river and city feed water and fire main piping, including test site related equipment in the 77H Complex and 633 Complex including all test sites and support facilities. The SP shall repair feed water tank farm supply and return piping joint leakage caused by expansion in the freezing weather. For safety reasons, SP personnel will communicate with other SP personnel performing similar work in other locations. The SP shall also perform required maintenance on the valves and level indicators to repair damage caused by extreme weather in accordance with NAVSSESNOTE 3140.

C.5.2.3 Kitting Support for Ship Alterations and Machinery Alterations

The SP shall provide kitting support for Ship and Machinery Alterations Programs. Kitting support involves receiving, storing, inventorying, packaging and shipping of all parts, equipment, systems, components and tools required to perform operations supporting the Ship and Machinery Alterations Program. This work is performed in Building 1000. This work is currently performed by warehousing personnel.

C.5.2.4 Fuel Systems and Operations

The SP shall receive, store and deliver fuel oil to the point of consumption in sufficient time for the conduct of tests as requested by the DGR. Historically, there have been 2-3 receipts by barge and 2-3 receipts by truck of bulk fuel oil to the Building 77H complex per annum.

The SP shall maintain two (2) tank farms consisting of seventeen fuel oil storage/service tanks. The current petroleum tank inventory is provided in Technical Exhibit J.5-03.

The SP shall comply with the NAVSSES Storage Tank Management Plan, NAVSSES 5090.4 (series) and OPNAVINST 5090.1 (series) during fuel oil deliveries, transfers and operations.

SP shall estimate the fuel requirement for the following calendar month based on the projected schedule of operations of the test sites. The SP shall notify the DGR of the need to order fuel when levels reach not less than 15% of total storage tank capacity.

The SP shall provide the fuel estimate to the DGR not later than (NLT) 14 calendar days prior to projected usage.

C.5.2.4.1 Fuel Oil Sampling at Time of Receipt

The SP shall take fuel oil samples from each delivering truck tank and/or barge compartment at the point of receipt and shall keep samples readily available for inspection for two (2) calendar weeks after they are drawn.

C.5.2.4.2 Sampling Fuel Oil Prior to Boiler Operations 633 Complex

Prior to boiler operation, the SP shall provide "grab" fuel oil samples taken from the top, middle and bottom location of each storage/service tank for visual inspection.

Within 48 hours of a request by the DGR for special testing, the SP shall provide special samples for laboratory inspection/analysis.

C.5.2.4.2.1 Quarterly Fuel Oil Samples

SP shall take quarterly tank/belly drain/sump samples from each storage/ service tank. Based upon the quarterly sample result, the SP shall remove any free water from the storage/service fuel tanks.

C.5.2.4.3 Waste Fuel Oil Removal

The SP shall remove and arrange through the Environmental Office, Code 357, for the disposal of all waste oil/oily water generated by the sampling procedures above IAW NAVSSES Instruction 5100.14 (series).

C.5.2.4.4 Oil Management - 633 Complex

The SP shall receive fuel oil delivered by tank trucks and store fuel oil in eleven fuel oil storage/service tanks (total capacity 170K gallons).

C.5.2.4.5 Oil Management – 77H Complex

The SP shall receive fuel delivered by barge or truck IAW NAVSSESINST 4780.1 (series) and store in three (3) fuel oil storage and three (3) service tanks (total capacity 361K gallons) located at the 77H Complex.

C.5.2.4.5.1 Gas Turbine Fuel

The SP shall supply gas turbine fuel to the DDG-51 LBES and other test sites located in the 77H Complex via the site DDG-51 LBES Fuel Oil Purifier and Day Tank using two (2) Fuel Oil Transfer Pumps located in the 77H Fuel Farm. The SP shall take fuel samples upon request from the technical engineering departments as needed.

C.5.2.4.5.2 Diesel Engine Fuel

The SP shall deliver fuel for use on Diesel Engine Test Sites from the bulk storage tanks located at the 77H Complex to the two (2) 500-gallon Diesel Test Facility Service Tanks. When fuel is delivered from the day tank, the SP shall monitor the day tank level and all valves, gages, filters and associated equipment.

C.5.2.4.6 Fuel Oil Tank Plans, Inventories and Reports

The SP shall provide input to the NAVSSES Storage Tank (ST) Management Plan for petroleum tanks under their control IAW NAVSSESINST 5090.4 and Chapter 16 of OPNAVINST 5090.1 (series) annually or as otherwise required by the DGR.

C.5.2.4.6.1 Tank Inventories

The SP shall maintain a current inventory of all petroleum tanks under their control. At a minimum, tank inventories provided by the SP shall include the tank type, volume, installation date, contents and a site map with tank registration numbers. The current petroleum tank inventory is provided in Technical Exhibit J.5-03.

C.5.2.4.6.2 Tank Inspection

The SP shall visually inspect storage/service tanks under their control for leaks monthly as specified in NAVSSES 5090.4 (series). The SP shall record inspection results and submit to the Environmental Office, Code 357, in the format shown in NAVSSESINST 5090.4 (series).

C.5.2.4.6.3 Utilization and Maintenance of Barges

The SP shall check each of the two (2) barges weekly for seaworthiness as well as the condition of brows, camels, mooring lines and the oil boom. Inspections shall be accomplished IAW NAVSSESINST 4780.1 (series). The SP shall forward a copy of the weekly inspection to the DGR for inclusion in the Service Craft Inspection Log (NAVSSES 4780/1) for each craft.

C.5.2.5 WEIGHT HANDLING EQUIPMENT (WHE) SERVICES

The SP shall operate one (1) Class I mobile crane, 17 Class II cranes and 45 non-cab operated Class III cranes in support of the NAVSSES engineering departments and in the fulfillment of the requirements of this contract. Technical Exhibit J.1-01 shows the anticipated workload for crane operations.

C.5.2.5.1 Crane Operations

The SP shall operate and crew/staff all Class I mobile, Class II and non-cab operated Class III cranes required for construction and dismantling, operation and maintenance in support of RDT&E functions at the Building 633 and 77H complexes and Building 1000, IAW NAVFAC Publication P-307. The SP will also be responsible for the inspection, testing and certification of chain falls and non-electric Category III gantry cranes IAW NAVFAC Publication P-307. Some WHE work may also take place in Building 542, NAVSSES Shipping and Receiving.

C.5.2.5.2 Crane Certification Records/Proof Test

The SP shall review records of all SP-operated cranes and prepare a notification to the DGR of the need to certify crane(s) whose certification will expire within three (3) months. The SP shall maintain records of all crane certifications for the life of the contract and turn them over to the DGR upon completion of the contract. The SP shall not operate cranes without a current crane certification (condition inspection and load test) conducted/certified by the Government IAW NAVFAC Publication P-307. The SP shall maintain on file an OEM manufacturer's proof test certificate for each piece of NAVFAC Publication P-307, Section 14 equipment in their inventory.

C.5.2.5.3 Maintenance of WHE Equipment Other Than Cranes

The SP shall inventory, maintain, test, mark and inspect all active rigging gear and other non-crane weight handling equipment IAW NAVFAC Publication P-307, Section 14. The SP's rigging gear inspectors shall meet all requirements of NAVFAC Publication P-307, Section 13.

C.5.2.5.4 Inspection of Rigging Equipment

The SP shall visually inspect equipment prior to each use. The SP shall formally inspect all rigging equipment annually IAW NAVFAC Publication P-307. Only qualified riggers may inspect rigging equipment.

C.5.2.5.5 Storage

The SP shall store all lift-capable rigging gear and other NAVFAC Publication P-307, Section 14 weight handling equipment in designated secured enclosures in each building complex (Buildings 633 – 9 enclosures, 77H – 3 enclosures and 29 – 1 enclosure). Separate storage must be provided for operations that require travel. A list of all equipment to be stored is provided in Technical Exhibit J-5-04

C.5.2.5.6 Disposal

The SP shall remove all unsatisfactory equipment and gear from weight handling service upon discovery and dispose of IAW NAVFAC Publication P-307. Disposal includes rendering the equipment inoperable by cutting, burning, or other approved method witnessed and recorded by a certified rigger.

C.6 RECORDS, REPORTS and SUBMITTALS

The SP shall prepare, process and maintain all records, reports, submittals and correspondence related to the work requirements of this PWS in an electronic format readable by Government computers. The Government currently uses Microsoft Office 2000.

C.6.1 Reports

The SP shall generate and deliver the required reports shown in Technical Exhibit J.6-01 to the DGR as specified.

TECHNICAL EXHIBIT J.1-01 PROJECTED WORKLOAD

12/18/03 C-21

Projected Workload in Hours

Operations -9,682

Construction -19,561

Maintenance/Repair -4,239

Total Industrial Support - 12,855 Total - 46,337

TECHNICAL EXHIBIT J.1-02 PERFORMANCE REQUIREMENTS SUMMARY

12/18/03 C-22

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.1.1	Test Site Construction	Provide support services to erect/disassemble test sites.	90%	Planned Sampling
C.5.1.2	Operations	Operate all prototype shipboard gas turbine propulsion systems, 600 and 1200 PSI steam propulsion systems, shipboard elevator systems, and any other test sites installed at NAVSSES.	95%	Planned Sampling
C.5.1.3.2	Preventive Maintenance Services	Perform Preventive Maintenance services on the specific systems and support equipment/facilities.	90%	Planned Sampling
C.5.1.3.3	Corrective Maintenance	Perform corrective maintenance services on the specific test sites and support equipment/facilities.	90%	Planned Sampling
C.5.1.4	Maintenance of Machine Shop Equipment	Perform Preventive Maintenance and minor repairs to Machine Shop equipment to ensure that the equipment is operationally ready to meet the product and delivery requirements of the requesting NAVSSES engineering department.	90%	Planned Sampling
C.5.2.1	Planning and Estimating	Provide planning and estimating (including materials) support and provide Independent Government Estimate(s) for construction, operation and maintenance.	90%	Planned Sampling

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.2.2	Operations/Equipment	Provide 24-hour protection against freezing weather damage to fuel lines/systems, steam/river, water/city water/feed water/fire main piping/including test site related equipment in the 77H Complex and 633 Complex including all test sites and support facilities.	90%	Planned Sampling
C.5.2.3.1		Obtain fuel oil analyses documentation from the shipper and forward to Code 357 (NAVSSES Environmental Office).	90%	Planned Sampling
C.5.2.3.1.1	Fuel Oil Sampling at Time of Receipt	Take fuel oil samples from each delivering truck tank and/or barge compartment at the point of receipt and shall keep samples readily available for inspection for two (2) calendar weeks after they are drawn.	90%	Planned Sampling
C.5.2.3.1.2	Roller Operations 633	Provide "grab" fuel oil samples taken from the top, middle and bottom location of each storage/service tank for visual inspection.	90%	Planned Sampling

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.2.3.1.3	Quarterly Fuel Oil Samples	Take quarterly tank/belly drain/sump samples. Based upon the quarterly sample result, the Service Provider shall remove any free water from the storage/service fuel tanks.	90%	Planned Sampling
C.5.2.3.2	Waste Fuel Oil Removal	Remove and dispose of all waste oil/oily water generated by the sampling procedures above IAW NAVSSES Instruction 5100.14 (series).		Planned Sampling
C.5.2.3.3	Oil Management-633 Complex	Receive fuel oil delivered by tank trucks and store fuel oil in eleven fuel oil storage/service tanks (total capacity 170K gallons).	90%	Planned Sampling
C.5.2.3.4	Oil Management-77H Complex	Receive fuel delivered by barge or truck IAW NAVSSESINST 4780.1 (series) and store in three (3) fuel oil storage and three (3) service tanks (total capacity 361K gallons).	90%	Planned Sampling
C.5.2.3.4.1	Gas Turbine Fuel	Supply fuel to the DDG-51 LBES and other test sites located in the 77H Complex via the site DDG-51 LBES Fuel Oil Purifier and Day Tank using two (2) Fuel Oil Transfer Pumps located in the 77H Fuel Farm.	90%	Planned Sampling
C.5.2.3.4.2	Diesel Engine Fuel	Deliver fuel for use on Diesel Engine Test Sites from the bulk storage tanks located at the 77H Complex to the two (2) 500-gallon Diesel Test Facility Service Tanks.	90%	Planned Sampling

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.2.3.5	Fuel Oil Tank Plans, Inventories & Reports	Provide input to the NAVSSES Storage Tank (ST) Management Plan for petroleum tanks under their control IAW NAVSSESINST 5090.4 and Chapter 16 of OPNAVINST 5090.1 (series) annually or as otherwise required by the DGR.	90%	Planned Sampling
C.5.2.3.5.1	Tank Inventories	Maintain a current inventory of all petroleum tanks under their control. At a minimum, tank inventories provided by the Service Provider shall include the tank type, volume, installation date, contents and a site map with tank registration numbers.	90%	Planned Sampling
C.5.2.3.5.2	Tank Inspection	Visually inspect storage/service tanks under their control for leaks monthly as specified in NAVSSES 5090.4 (series). The Service Provider shall record inspection results and submit to the Code 357, Environmental Office, in the format shown in NAVSSESINST 5090.4 (series).	90%	Planned Sampling
C.5.2.3.5.3	Utilization & Maintenance of Barges	Check each of the two (2) barges weekly for seaworthiness as well as the condition of brows, camels, mooring lines and the oil boom.	90%	Planned Sampling
C.5.2.4.1	Crane Operations	Operate and crew/staff all cranes required for construction and dismantling, operation and maintenance in support of RDT&E functions at the Building 633 and 77H complexes and Building 1000, IAW NAVFAC Publication P-307.	94%	Planned Sampling

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.2.4.2	Crane Certification Records/ Proof Test	Review records of all service provider-operated cranes and prepare a notification to the DGR of the need to certify crane(s) whose certification will expire within three (3) months. The Service Provider shall maintain records of all crane certifications for the life of the contract and turn them over to the DGR upon completion of the contract. Maintain on file an OEM manufacturer's proof test certificate for each piece of NAVFAC Publication P-307, Section 14 equipment in their inventory.	94%	Planned Sampling
C.5.2.4.3	Maintenance of Rigging Gear & Other Section 14 Equipment	Inventory, maintain, test, mark and inspect all active rigging gear and other non-crane weight handling equipment IAW NAVFAC Publication P-307, Section 14.	95%	Planned Sampling
C.5.2.4.6	Disposal	Remove all unsatisfactory equipment and gear from weight handling service upon discovery and dispose of IAW NAVFAC Publication P-307. Disposal includes rendering the equipment inoperable by cutting, burning, or other approved method witnessed and recorded by a certified rigger.	90%	Planned Sampling
C.5.3.1	Shipboard & Submarine Alteration & Modification Support	Provide support for alterations and modifications in support of shipboard and submarine in-service engineering efforts of the NAVSSES technical codes.	92%	Planned Sampling
C.5.3.2	Shipboard & Submarine Casualty Repair Support	Provide support for Casualty Repair in support of shipboard and submarine in-service engineering efforts of the NAVSSES technical codes.	90%	Planned Sampling

PWS Line Item	Requirement	Standard	Acceptable Quality Level (AQL) %	Method of Surveillance
C.5.3.3	Equipment Removal & Transport Support	Provide support services to NAVSSES technical codes for onboard equipment removal/transfer on inactive Navy ships.	90%	Planned Sampling

TECHNICAL EXHIBIT J.1-03 TECHNICAL LIBRARY

12/18/03 C-23

Technical Library

INDUSTRY STANDARDS

<u>NUMBER</u> <u>TITLE</u>

ASME Boiler and Pressure Vessel Code

ASME CSD-1 Controls and Safety Devices for Automatically fired boilers

IEEE 80 Guide to Safety in AC Substation Grounding

NEC National Electric Code

Standard 15-1994

NFPA National Fire Protection Association

NFPA 13 Standard for the Installation of Sprinkler Systems

NFPA 25 Standard for the Inspection, Testing and Maintenance of Water-Based Fire

Protection Systems

NFPA 30 Flammable and Combustible Liquids Code NFPA 30A Automotive and Marine Service Station Code

NFPA 70 National Electrical Code

NFPA 72 and 90A National Fire Alarm Code, Standard for the Installation of Air-Conditioning and

Ventilating Systems

NFPA 780 Standard for the Installation of Lightning Protection Systems

NAVFAC POLICY AND GUIDELINES

NUMBER TITLE

MO-110 Paints and Protective Coatings

MO-114 Building Maintenance Plumbing, Heating, and Ventilation

MO-201 Operation of Electric Power Distribution Systems
MO-321 Maintenance Management of Shore Facilities

P-307 NAVFAC - Management of Weight Handling Equipment

NAVFAC INST 11200.33 Audit and Validation of the Maintenance Management of Weight handling

Equipment at Naval Activities

NAVFAC INST 11450.1 Management of Weight Equipment

DEPARTMENT OF THE NAVY

OPNAV

NUMBER TITLE

4110.2 Hazardous Material Control and Management
 4790.4 Ship's Maintenance Material Management Manual
 5090.1 Environmental and Natural Resources Program Manual
 5100.8 Navy Occupational Safety and Health Program

5100.23 Navy Occupational Safety and Health Program Manual

SECNAV

NUMBER TITLE

5090.5 Management and Elimination of Ozone Depleting Substances

5100.10 DON Policy for Safety, Mishap Prevention, and Occupational Health Programs

11260.2 Navy Weight Handling Program for Shore Activities

DEPARTMENT OF DEFENSE

5220.22 National Industrial Security Program Operating Manual

MIL-HDBK-1152 Inspection and Certifications of Boilers and Unfired Pressure Vessels

FEDERAL LAWS

Resource Conservation and Recovery Act (RCRA). The law was enacted in 1976 and covers regulations 40 Code of Federal Regulations (CFR) Parts 146, 148, and 260 - 299. These parts regulate facilities like IHDIV, NSWC that manage and/or dispose of hazardous waste.

Toxic Substances Control Act (TSCA). The law was enacted in 1976 and covers regulations 40 CFR Parts 700 - 799. These parts are designed to regulate chemical substances which present an unreasonable risk of injury to health or the environment; regulate the manufacture, processing, distribution, use, marking and disposal of polychlorinated biphenyls (PCBs); and establish a program for asbestos removal from schools and require studies into the dangers of asbestos in public and commercial buildings.

Clean Water Act (CWA). The law was enacted in 1972 and covers regulations 40 CFR Parts 104 - 140 and 401 - 471. These parts establish quantity limits for reporting spills of oil and hazardous substances and require facilities like IHDIV, NSWC to reduce and eventually eliminate the amount of wastewater discharged into waterways through the National Pollutant Discharge Elimination System (NPDES).

Safe Drinking Water Act (SDWA). The law was enacted in 1974 and covers regulations 40 CFR Parts 141 - 147 and 149. These parts set public drinking water standards and protect underground water sources, through various means, including controls on the use of injection wells for the disposal of wastes.

Hazardous Material Transportation Act (HMTA). The law was enacted in 1975 and covers regulations 49 CFR Parts 171 - 195. These parts establish the Department of Transportation (DOT) regulations for transporting hazardous material and hazardous waste.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The law was enacted in 1980 and focuses on closed waste site problems, spill responses and issues of liability and cleanup funding. This law was reauthorized in 1986 by the Superfund Amendments and Reauthorization Act (SARA) and covers regulations 40 CFR Parts 350 - 372.

Clean Air Act (CAA). The law was enacted in 1970 and covers regulations 40 CFR Parts 50 - 99. These parts govern the emission of hazardous air pollutants into the environment.

Defense Authorization Act FY1993 - Section 326 (PL 102-484)

Freedom of Information Act of 1975 5 U.S.C., Section 552

Public Law 93-502 5 U.S.C., Section 552

Title 18, Sections 793 and 798 of the United States Code Disclosure of Information

Technical Library

FEDERAL REGULATIONS

NUMBER	<u>IIILE</u>
29 CFR 1910	Occupational Safety and Health Standards for General Industry
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.135	Head Protection
29 CFR 1910.136	Foot Protection
29 CFR 1910.145	Specifications for accident Prevention Signs and Tags
29 CFR 1910.146	Permit-required confined spaces
29 CFR 1910.147	The control of hazardous energy (lockout/tagout)
29 CFR 1910.1001	Asbestos
29 CFR 1910.1200	Hazard Communication
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.32	Definitions
29 CFR 1926.1101	Asbestos
40 CFR	Protection of Environment
40 CFR 82	Protection of Stratospheric Ozone
40 CFR 260-268	Hazardous Waste Management System
40 CFR 761	Polychlorinated biphenyls (PCBs) Manufacturing, Processing, Distribution in
	Commerce, and Use Prohibitions
49 CFR	Transportation
49 CFR 172	Hazardous Materials Table" Appendix 172.101, List of Hazardous Substances and
	Reportable Quantities

U.S. NAVAL SUPPLY SYSTEMS COMMAND INSTRUCTIONS

NAVSUP PUBLICATION 538 Material Handling Equipment Maintenance

Technical Library

NSWCCD Carderock Division Instructions

INST	DATE	CODE	SUBJECT	
2300.1	3 Nov 98	302	INAPPROPRIATE USE OF THE INTERNET	
2300.2A	15 Feb 02	302	FIREWALL SECURITY PROGRAM	
3100.1	26 Jul 02	002	EMERGENCY MANAGEMENT PLAN	
	12 Sep		NSWCCD DIVING PROGRAM	
3150.5	99	002		
4101.1C	31 Oct 00	36	ENERGY MANAGEMENT PROGRAM	
4734.1A	8 Apr 02	9534	METCAL PROGRAM	
4855.4D	12 Feb 99	96	SUBSAFE/LEVEL I SYSTEMS MANUAL NON-NUCLEAR	
4855.7	17 Feb 94	9452	UNSATISFACTORY MATERIAL REPORTING (UMR) PROGRAM	
4855.8	9 Aug 95	9601	PROCEDURES FOR DOWNGRADING CONTROLLED MATERIAL (CM)	
5000.1A	17 Jul 00	005	COMMAND EVALUATION AND REVIEW (CER) PROGRAM	
	9 AUG		DIVISION MANAGEMENT SYSTEM (DMS) QUALITY MANUAL	
5000.2A	02	307		
5100.1	30 Sep 94			
CH-1	5 Apr 96			
CH-2	21 Nov 99	35	OCCUPATIONAL SAFETY AND HEALTH MANUAL	
5100.8A	20 Dec 99			
CH-1	2 Nov 01	35	RADIATION SAFETY PROGRAM	
5200.1	19 Mar 97	005	MANAGEMENT CONTROL PROGRAM	
5239.1	15 Nov 98	302	WWW POLICY AND PROCEDURES	
5239.2A	24 Jul 02	302	VIRTUAL PRIVATE NETWORK (VPN) POLICY	
5239.3A	1 Oct 02	302	NOTIFICATION OF OVERSEAS/OCONUS TRAVEL AND EMAIL/NETWORK	
5355.2	15 Oct 93	32	DRUG-FREE WORKPLACE	
5500.4B	24 Jul 02	308	SECURITY PROGRAM MANUAL	
			CARDEROCK SITE VEHICLE CONTROL AND TRAFFIC ENFORCEMENT	
5560.1	20 Dec 99	308	PLAN	
5910.1	12 Feb 99	3603	SPACE ALLOCATION PROCESS	
6280.1C	2 Aug 93	35	AIR POLLUTION PLAN	
7040.1A	4 Nov 93	31	SUPPLY DEPARTMENT CHARGING POLICY	
9090.2	9 Sep 93	6234	QUALIFICATION AND CERTIFICATION OF NDT PERSONNEL	
11262.2	12 Jun 97	3612	MANAGEMENT OF WEIGHT HANDLING EQUIPMENT	
11320.1D	1 Aug 94	306	NSWCCD FIRE BILL	

Technical Library

NSWCCD Carderock Division Notices

NOTE	DATE	CODE	SUBJECT	
5090	5 Dec 94	35	DIVISION POLICY AND RESPONSIBILITIES FOR ENVIRONMENTAL	
			COMPLIANCE AND PROTECTION	
5215	11 Jun 03	3092	SEMIANNUAL DIRECTIVES INDEX AND REVIEW	
5239	11 Dec 01	302	MODEM POLICY	
5420	1 Dec 94	35	ENVIRONMENTAL COMPLIANCE BOARDS	
5450	26 Aug 96	20	ORGANIZATION AND FUNCTIONAL STATEMENTS OF THE TOTAL SHIP	
			SYSTEMS DIRECTORATE, CODE 20	
5450	3 Sep 97	012	ORGANIZATIONAL AND FUNCTIONAL STATEMENTS OF THE BUSINESS	
			DEVELOPMENT OFFICE, CODE 012	
5450	14 Sep 00	5010	ORGANIZATION AND FUNCTIONAL STATEMENTS OF THE	
			HYDROMECHANICS DIRECTORATE, CODE 50	
5450	2 Nov 00	60	ORGANIZATION AND FUNCTIONAL STATEMENTS OF THE SURVIVABILITY,	
			STRUCTURES, AND MATERIALS DIRECTORATE, CODE 60	
5450	5 Aug 02	30	REORGANIZATION OF THE OFFICE OF THE COMMANDER, CODE 00, AND	
			THE OPERATIONS DIRECTORATE, CODE 30	
5450	1 Oct 02	90	REORGANIZATION OF THE MACHINERY RESEARCH AND ENGINEERING	
			DIRECTORATE, CODE 90	

NAVSSES Instructions

INST	DATE	CODE	SUBJECT		
1601.1M	14 Feb 02	0201	NSWCCD-SSES WATCHSTANDING ORGANIZATION AND		
			RESPONSIBILITIES		
1601.3	14 Feb 02	912	FUNCTIONS AND RESPONSIBILITIES OF THE AFTER HOURS TECHNICAL		
			WATCH AND MESSAGE CENTER		
3900.3D	23 Feb 98	911	MISSION READINESS PANELS (MRP)		
4110.5	9 Jul 97	35	HAZARDOUS MATERIAL CONTROL AND MANAGEMENT (HMC&M) AND		
			HAZARDOUS COMMUNICATION (HAZCOM) PROGRAM		
4130.1	12 Aug	942	CONFIGURATION MANAGEMENT POLICY AND GUIDANCE		
	02				
4150.1	19 Jun 81	912	SHIP SYSTEMS ISE ADVISORY PROGRAM		
CH-1	27 Aug				
CH-2	82				
.====	4 Jun 95				
4720.2C	9 Apr 99	915	PROCESS AND POLICY FOR SHIPBOARD INDUSTRIAL WORK		
4730.2B	18 Dec	912	INSURV SUPPORT REQUIREMENTS FOR TRIALS AND MATERIAL		
CH-1	91		INSPECTIONS OF SHIPS AND SERVICE CRAFT		
CH-2	21 Sep				
	92				
	18 Dec 92				
4780.1B	16 Feb 96	3632	UTILIZATION AND MAINTENANCE OF SERVICE AND SMALL CRAFT		
4855.8A	29 Oct 99	9126	SOP FOR SUBMARINE RELATED WORK		
5090.1A	26 Mar 01	35	AIR POLLUTION EPISODE PLAN		
5090.2	30 Apr 96	35	AIR EMISSIONS COMPLIANCE		
5090.3	10 Jun 97	35	MANAGEMENT PLAN FOR EQUIPMENT CONTAINING OZONE DEPLETING		
0000.0	10 0011 07		SUBSTANCES (ODS)		
5090.4	28 Nov	35	STORAGE TANK MANAGEMENT PLAN		
CH-1	01				
	14 Feb 02				
5100.14F	20 Feb 03	35	OCCUPATIONAL SAFETY AND HEALTH PROGRAM MANUAL		
5530.6	5 Oct 98	028	AUTOMATIC ACCESS CONTROL AND INTRUSION DETECTION SYSTEMS		
5530.7A	29 Mar 01	028	THREAT CONDITIONS (THREATCON) PLAN		
5530.9	4 Jan 99	028	PHYSICAL SECURITY REVIEW BOARD (PSRB)		
5530.10	17 Dec	028	PHYSICAL SECURITY REVIEW COMMITTEE (PSRC)		
	98				
5530.12	10 Feb 99	028	AFTER-HOURS ACCOUNTABILITY SYSTEM (NIGHT ORDERS)		
9234.1	29 Mar 01	933	PROCEDURES FOR SHIPBOARD MARINE GAS TURBINE REPLACEMENT		
020 -1 .1	29 Iviai U i	000			
0204.1	29 Iviai 01		AUTHORIZATION		
11300.1B 11320.2A	5 Jun 97 19 Jul 00	363 022	AUTHORIZATION STANDARDS AND RESPONSIBILITIES FOR ELECTRICAL INSTALLATIONS FIRE PROTECTION AND PREVENTION FOR NSWCCD-SSES		

Technical Library

NAVSSES Notices

NOTE	DATE	CODE	<u>SUBJECT</u>
3100	1 Dec 94	0201	URGENT COMMUNICATIONS RESPONSE KIT
CH-1	10 Sep 95		
3140	23 Jun 95	022	EXTREME WEATHER PLAN
CH-1	30 Jun 95		
CH-2	30 May 96		
CH-3	22 Dec 98		

DTRC Instructions

<u>INST</u>	<u>DATE</u>	CODE	<u>SUBJECT</u>
2030.1B	4 May 87	36	TELEPHONE COMMUNICATIONS SYSTEMS
5090.4A	24 May 88	35	OIL SPILL CONTINGENCY PLAN
5500.3	18 Nov 85	38	PURCHASE OF PORTABLE AUDIO ELECTRONIC EQUIPMENT FOR THE
			PURPOSE OF SOUND COVER
11014.1D	21 Oct 86	36	REQUEST FOR PUBLIC WORKS AND INDUSTRIAL SERVICE

TECHNICAL EXHIBIT J.2-01 DEFINITIONS, ABBREVIATIONS AND ACRONYMS

12/18/03 C-24

ABBREVIATIONS, ACRONYMS, and DEFINITIONS

I. Abbreviations and Acronyms

Abbreviation/Acronym Term

CA Commercial Activities

CFR Code of Federal Regulations
DDG Guided Missile Destroyer

DGR Designated Government Representative

DOD Department of Defense
DSN Defense Switched Network

DTRC David Taylor Research Center (Carderock)
EOSS Engineering Operating Sequencing System

EPA Environmental Protection Agency

FPCON Force Protection Condition

GFE Government Furnished Equipment
GFF Government Furnished Facilities
GFM Government Furnished Material
GFP Government Furnished Property
GFS Government Furnished Services

HAZMAT Hazardous Material

HM&E Hull, Mechanical and Electrical

IH Industrial Hygiene

NAVSSES Naval Ship Systems Engineering Station

OSHA Occupational Safety and Health Administration (or Act)

PE Program Engineer
PM Program Manager

PMS Planned Maintenance System
OEA Occupational Exposure Assesment
PRS Performance Requirements Summary

PWS Performance Work Statement

QA Quality Assurance

QAE Quality Assurance Evaluator

QASP Quality Assurance Surveillance Plan

QC Quality Control

RDT&E Research, Development, Test and Evaluation

SP Service Provider TE Technical Exhibit

II. Definitions of Terms

<u>As Directed, As Required, As Permitted, Approval, Acceptance</u>. Terms that indicate that direction, requirement, permission, approval, or acceptance of the Contracting Officer are intended unless stated otherwise.

ABBREVIATIONS, ACRONYMS, and DEFINITIONS

<u>Contracting Officer's Representative (COR)</u>. The Contracting Officer's Representative is appointed by the Contracting Officer to serve as the day-to-day manager of the contract. The Contracting Officer's Technical Assistants and Quality Assurance Evaluators work for the COR.

<u>Contracting Officer</u>. A duly appointed person with the authority to enter into, administer, or terminate contracts and to make findings and determinations on behalf of the United States Government. This is the only individual authorized to change a contract or any of the requirements therein. This is also the only individual who can bind the Government monetarily and direct the Service Provider.

<u>Construction</u>. The building/erection, disassembly, modification or alteration of the test sites, systems or equipment referenced in the PWS.

<u>Customer</u>. An authorized individual, office, or command that receives services under this contract.

Day. A normal work day, unless otherwise specified.

<u>Defense Switched Network</u>. The Department of Defense long distance telephone system.

<u>Designated Government Representative.</u> The individual identified by Command Management and approved by the Contracting Officer to serve as the technical liaison between the Service Provider and the Contracting Officer.

<u>Emergency Situation</u>. Any unforeseen circumstance or combination of circumstances that require immediate action.

<u>Maintenance (General)</u>. The work required to preserve and maintain a real property facility or piece of equipment in such condition that it may be effectively used for its designated functional purpose. Maintenance also includes repairs.

Official Visitor. Any visitor other than a customer.

<u>Operator</u>. The person or persons responsible for the overall operation of a facility, part of a facility, or equipment. For purposes of this contact, the Service Provider is the operator.

<u>Performance Requirements Summary (PRS)</u>. A listing of the service outputs under the contract that are to be evaluated by the Quality Assurance Evaluator on a regular basis, the surveillance methods to be used for these outputs, and the Accepted Quality Level (AQL) of the outputs.

<u>Performance Work Statement (PWS)</u>. A document that accurately describes the essential and technical requirements of the contract for products and services. The PWS embodies the requirements section of a solicitation, and describes requirements in terms of what the requirements are and not how to do them.

ABBREVIATIONS, ACRONYMS, and DEFINITIONS

<u>Physical Security</u>. Action taken to preserve and protect Government property from loss or damage.

<u>Project Manager</u>. The individual employed by the Service Provider who has full authority and responsibility for managing a project.

<u>Safety Office</u>. Office located on Naval Business Center Philadelphia that enforces all Occupational Safety and Health Administration regulations.

<u>Service Provider</u>. The entity held accountable for accomplishment of the requirements in this contract. The Service Provider may be an individual, partnership, company, corporation, or the Governments Most Efficient Organization (MEO). The term also covers requirements for any Sub-Service Provider working for the prime Service Provider. The Service Provider is ultimately responsible for ensuring that all subcontractors comply with the provisions of this contract.

Service Provider (SP) Facility. The test sites, systems and support equipment/facilities owned by the government and provided for the SP to operate and maintain.

Workday. A normal duty day, Monday through Friday, except for Federal Government holidays as specified in paragraph C.1.5.1.

TECHNICAL EXHIBIT J.3-01 GOVERNMENT FURNISHED FACILITIES

12/18/03 C-25

	Building 633 Complex consists of:	SP Facility	Shared Use Facility
1	633		Υ
2	619		Υ
3	824		Υ
4	530 Pump House	Y	
5	618 Pump House	Y	
6	666 Pump House	Y	
7	770		Υ
8	531		Υ
9	952 Distilled Water Tanks	Y	
10	520	Y	
11	47		Υ
12	745		Y
13	950 Fuel Farm	Y	
14	951 Fuel Farm	Y	

	Building 77H Complex consists of:	SP Facility	Shared Use Facility
1	77H		Υ
2	756	Υ	
3	670		Υ
4	77L		Υ
5	483		Υ
6	87		Υ
7	776 Fuel Cell Building		Υ
8	534		Υ
9	Pier 7		Y
10	480 Aegis		Υ
11	483 Fuel Facility		Υ
12	485 Potable Water Loop		Υ
13	779 Fuel Tanks	Υ	
14	80 Electrical Substation		Υ
15	431 Boathouse		Υ

Building 542	SP Facility	Shared Use Facility
NAVSSES Shipping and Receiving		Y

ĺ	Building 1000	SP Facility	Shared Use Facility
Ī	1st, 3rd and 4th Floors		Υ

TECHNICAL EXHIBIT J.3-02 GOVERNMENT FURNISHED EQUIPMENT

12/18/03 C-26

Government Furnished Equipment

MASTER CONTROL NBR	MFG MODEL	BUILDING	DESCRIPTION	MFG SERIAL NUMBER	MFG NAME
65540002805000	10TE	77H	AIR COMPRESSOR LOW PRESSURE	30T488693	BYRNE EQUIPMENT
65540004735000	660PSIG	77H	RELIEF VALVE	NONE	CROSBY VALVE ABT CO
65540004736000	660PSIG	77H	RELIEF VALVE	NONE	CROSBY VALVE CO.
65540004771000	ROTOR	77H	PUMP ASSEMBLY ROTOR	NONE	UNK
65540004772000	ROTOR	77H	PUMP ASSEMBLY ROTOR	NONE	UNK
65540004780000	BRPX417	77H	CENTRIFUGE	NONE	ALFA LAVAL
151053844000	3000	1000	ENGRAVING SYSTEM AUTOMATIC	100032	VANGUARD INC
65540001919000	CAP1500	782	STORAGE TANK FOR LUBE OIL TEST	4265	UNK
65540002014000	PN67141	520	HYDRAULIC TRANSMISSION VARIABLE SPEED	312701	UNK
65540002015000	PN67142	520	HYDRECO TRANSMISSION VARIABLE SPEED	312702	UNK
65540002738000	MAPX204	633	SELF CLEANING CENTRIFUGAL MODULE ALFA L	2997907	UNK
62196002360000	DD692	633	PUMP CENTRIFUGAL	1176863	WORTHINGTON PUMP
151053843000	T50003	1000	MARKER PLASTIC TUBE AUTOMATIC	NONE	UNK
62196002361000	DD692	633	PUMP CENTRIFUGAL	1176893	WORTHINGTON PUMP
65540003138000	D0120B250	633	FUEL PUMP	1MAM02563GIVJ	TRANSAMERICA DELAVAL
65540000242000	FIG3175	633	PUMP H D	226B134	GOULDS PUMPS INC
62196000932000	31017	633	PUMP CIRCULATING	PD3040	POMONA PUMP CO
65540002984000	3175L	633	PUMP WATERBRAKE	267B927	GOULD PUMPS
65540004506000	6INCH	633	VALVE RELIEF 6'	87148621	GIMPLE CORP
65540000225000	212VHTB	633	PUMP	87123	INGERSOLL RAND
	USPX		PURIFIER ASSY CENTRIFUGAL OIL	3533468	ALFA LAVA
65540002896000	BIGWILDCAT	29	WELDER MOUNTED ON TRAILER	NONE	GECO INC
65540004505000	6INCH	29	RELIEF VALVE 6'	87148622	GIMPLE CORP.
65540004545000	DOHNSX	29	PRESSURE REDUCING VALVE	N688616VI	LESLIE INC.
65540000204000	4HMTB7	633	CENTRIFUGAL PUMP	0671145M	INGERSOLL RAND
65540002206000	NONE	633	COMBUSTION CHAMBER BURNER TEST STEEL FA	NONE	UNK
65540002207000	NONE	633	COMBUSTION CHAMBER WATER COOLED STACK S	NONE	UNK
65540002262000	UCDH1622H	633	ULTRANSONIC CLEANER & DEGREASER CREST I	NONE	UNK
65540002911000	AD203	633	COMPREESSOR	P40G976G1A	NASH ENGR CO
65540004798000	H536	633	FLANGE PRESS PORTABLE	2348889	ACTION MACHINERY
65540005148000	8000	633	PC TESTER PORTABLE	1085	VU-DATA CORP
65540003688000	475	542	PRESSURE VALVE REDUCING	9105671	CLIFFORD B CO.
65540004691000	X2NFKTB	77H	PRESSURE PROPORTION BALAMCED	166740J	UNK
65540004946000	HPE310	633	HYDRAULIC PUMP	41	INDUSTRIAL EQUIPMENT CORP.
65540000482000	T909	633	LOAD BANK GENERATOR TEST STAND	11	AVTRON
62196000269000	CL55	520	PUMP CENTRIFUGAL	1138849	WORTHINGTON CORP
65540007082000	9200	745	ENGRAVING PLOTTER SYS	800425745	NEW HERMES
65540108900000	1813	633	BENDING TABLE	NA	GREEN LEE
151073704000	30MH	1000	BANDSAW	13946	TANNEWITTS WORKS
65540005039000	4CK	1000	MILLING MACHINE	27044	KEARNEY AND TRECKER CORP
65540005040000	1R3	77H	DRILLING MACHINE RADIAL	1R4780	CINCINNATI & GILBERT MCH
151010682000	36SPIRALDR	633	LATHE BULLARD CO	17493	WHITE CONSOLIDATED INDUSTRIE:
173112696000	1694		ENGINE LATHE	16946491251	PRATT & WHITNEY
265006757000	HE	633	SHAPER HYDRAULIC	115HE88	ROCKFORD MACHINE TOOL CO
62196002028000	NE16	633	LATHE	NE6870	LEBOND MACHINE TOOL CO

Page 1 of 2

Government Furnished Equipment

MASTER CONTROL NBR	MFG MODEL	BUILDING	DESCRIPTION	MFG SERIAL NUMBER	MFG NAME
65540000487000	2013	633	LATHE	48241	W.E.LODGE SHIPLEY CO
65540000591000	824	633	GRINDER MACHINE SURFACE	623824709	BROWN AND SHARPE MFG CO
65540000628000	6122516	633	ENGINE LATHE	50473	MONARCH MACHINE TOOL CO
65540000769000	3000MH	633	SAWING MACHINE	MH3011570	PEERESS MACHINE CO
65540002364000	8	633	BANDSAW	812017	ARMSTRONG-BLUM MFG CO
65540004246000	408	633	PIPE LATHE	8403183	MACHINE CUTTINE INC
65540004268000	430TFDP	633	MILLING MACHINE	358201	KEARNEY AND TRECKER CORP
65540004960000	ASEC	633	SAW CUT-OFF	600775	MAX-E-MIL IND
65540005018000	380S	633	SHARPING MACHINE	W990	TRI STATE IND
65540005043000	36W	633	SAWING AND FILING MACHINE	31531165	DO ALL CO
65540005045000	EE	633	ENGINE LATHE	42310	MONARCH MFG
65540005046000	3B	633	DRILLING MACHINE	5743	CINCINNATI GILBERT MACHINE CO
65540005047000	1406	633	SHEARING MACHINE	16880	CINCINNATI INC
65540005237000	SER1V2XT	633	CNC VERTICAL KNEE TYPE MILLING MACH	XT664	UNK
65540004853000	NH1810	29	ENGRAVING SYS	100507	HERMES INC
65540004327000	BB1149	633	PORTABLE BORING BAR MACHINE	UNK	CLIMAX
65540004925000	HB632	633	PIPE BENDER	631050	PARKER HYDRAULIC INC
65540005066000	PIRANHA	633	HYDRAULIC IRON WO	P70081	FOX MACHINERY PA
65540005088000	R3L	633	BENDING MACHINE WEBB CORP	210	WEBB CORP
65540005048000	HLV	633	LATHE ENGINE I&S GP	5083	HARDINGE BROS INC
65540005064000	1406	77H	CINCINNATI SHEARING MACHINE	15137	CINCINNATI INC
151018380000	3004	1000	STRESS RELIEF SYSTEM PORTABLE PROG	7924	UNK
151018381000	3004	1000	STRESS RELIEF SYSTEM PORTABLE PROG	15626	UNK
151018382000	3004	1000	STRESS RELIEF SYSTEM PORTABLE PROG	15626	UNK
167001305000	DPL36PDC	77H	LIFT PERSONNEL DUAL	15851935	GENIE

TECHNICAL EXHIBIT J.3-02A CRANE INVENTORY

12/18/03 C-27

Technical Exhibit J.3-02A CRANES

Crane #	Туре	Manufacturer	Year	Capacity	Category	Building
77-J7	JIB ELECTRIC CHAIN	СМ	N/A	500	3	77
77-J8 INT	JIB ONLY	SPANCO	1991	500	3	77
77-MB6	MONO-BRIDGE CHAIN FALL	CHESTER HOIST	1999	1,000	3	77
77-MB7	MONO-BRIDGE CHAIN FALL	CHESTER HOIST	1999	1,000	3	77
77-J1	JIB ELECTRIC CHAIN	HARRINGTON	N/A	2,000	3	77
77-J6 INT	JIB AND TROLLEY ONLY	SPANCO	N/A	2,000	3	77
77-J9 INT	JIB and TROLLEY ONLY	SPANCO	N/A	2,000	3	77
77-M9	MONORAIL CHAIN FALL	ZEPHER	N/A	4,000	3	77
77-MB1 INT	O.E.T. WIRE ROPE	WHITING	N/A	4,000	3	77
77-MB4	MONO-BRIDGE ELECTRIC CHAIN	BUDGIT	1998	4,000	3	77
77-MB2 INT	MONO-BRIDGE ELECTRIC WIRE ROPE	BOX CAR	N/A	10,000	3	77
77-MB8	MONO-BRIDGE ELECTRIC WIRE ROPE	KONECRANE	2002	15,000	3	77
77-M8	MONORAIL ELECTRIC WIRE ROPE	R & M	1995	20,000	2	77
77-M103	MONORAIL ELECTRIC WIRE ROPE	YALE	1996	60,000	2	77
77-M104	MONORAIL ELECTRIC WIRE ROPE	YALE	1996	60,000	2	77
AE-160	OVERHEAD ELECTRIC TRAVELING	MILWAUKEE	1954	9,500	3	87
AE-161	OVERHEAD ELECTRIC TRAVELING	CLEVELAND	1919	19,500	3	87
AE-24	OVERHEAD ELECTRIC TRAVELING	A.C.E. Co	1998	19,900	3	87
AE-25	OVERHEAD ELECTRIC TRAVELING	A.C.E. Co	1998	19,900	3	87
AE-26	OVERHEAD ELECTRIC TRAVELING	A.C.E. Co	1998	19,900	3	87
AE-28	OVERHEAD ELECTRIC TRAVELING	DETROIT	1918	19,900	3	87
520-MB-2 INT	MONORAIL ELECTRIC WIRE ROPE	ROBBINS-MEYERS	N/A	1,000	3	520
AE-96	OVERHEAD ELECTRIC TRAVELING	P & H	1939	20,000	2	542
AE-97	OVERHEAD ELECTRIC TRAVELING	P & H	1939	20,000	2	542
AE-90	OVERHEAD ELECTRIC TRAVELING	P & H	1939	30,000	2	542
633-J2	JIB ELECTRIC CHAIN	COFFING	2000	2,000	3	633
633-MB4	MONO-BRIDGE ELECTRIC CHAIN	CHISHOLM MOORE	N/A	2,000	3	633
633-J3	JIB ELECTRIC CHAIN	WRIGHT	N/A	3,000	3	633
633-MB3	MONO-BRIDGE ELECTRIC WIRE ROPE	WRIGHT	1977	6,000	3	633
633-PG1 INT	GANTRY ELECTRIC WIRE ROPE	WALLACE GANTRY-CM HOIST	2000	6,000	3	633
AE-139	OVERHEAD ELECTRIC TRAVELING	P&H	1939	80,000	2	633
AE-147	OVERHEAD ELECTRIC TRAVELING	CYCLOPS	1954	100,000	2	633
AE-148	OVERHEAD ELECTRIC TRAVELING	CYCLOPS	1954	100,000	2	633
AE-156 INA	OVERHEAD ELECTRIC TRAVELING	FULTON	1977	100,000	2	633
AE-124	OVERHEAD ELECTRIC TRAVELING	P&H	1941	112,000	2	633

Technical Exhibit J.3-02A CRANES

Crane #	Туре	Manufacturer	Year	Capacity	Category	Building
AE-125	OVERHEAD ELECTRIC TRAVELING	P&H	1941	112,000	2	633
666-MB1 INT	BRIDGE CHAIN DRIVE WIRE ROPE	SHAW BOX	N/A	20,000	2	666
824-MB1	MONO-BRIDGE CHAINFALL	WRIGHT	N/A	8,000	3	824
824-MB2	MONO-BRIDGE CHAINFALL	WRIGHT	N/A	8,000	3	824
1000-H1	FIXED JIB CHAINFALL	YALE	N/A	1,000	3	1000
1000-MB11 INT	MONORAIL ELECTRIC CHAIN	PEERLESS	N/A	1,000	3	1000
1000-M1 INT	MONORAIL ELECTRIC WIRE ROPE	WRIGHT	N/A	2,000	3	1000
1000-M6 INT	MONORAIL ELECTRIC WIRE ROPE	ACCO	1985	2,000	3	1000
1000-M7 INT	MONORAIL ELECTRIC WIRE ROPE	ACCO	1985	2,000	3	1000
1000-PC1	PEDASTAL ELECTRIC WIRE ROPE	VENTURO	1998	2,000	3	1000
1000-PG3	PORTABLE GANTRY ELECTRIC CHAIN	JET	1998	2,000	3	1000
1000-J1	PILLAR JIB ELECTRIC WIRE ROPE	ELECTRO LIFT	N/A	4,000	3	1000
1000-MB3 INT	MONO-BRIDGE	PRODUCTION EQUIPMENT CO.	N/A	4,000	3	1000
1000-MB4 INT	MONO-BRIDGE	PRODUCTION EQUIPMENT CO.	N/A	4,000	3	1000
1000-M8 INT	MONORAIL ELECTRIC WIRE ROPE	WRIGHT	1985	5,000	3	1000
1000-MB1	MONO-BRIDGE ELECTRIC WIRE ROPE	COLUMBUS McKINNON	1991	5,000	3	1000
1000-MB2	MONO-BRIDGE ELECTRIC WIRE ROPE	COLUMBUS McKINNON	1991	5,000	3	1000
AE-155 INA	OVERHEAD ELECTRIC TRAVELING	LANSDALE	1975	6,000	3	1000
AE-152 INA	OVERHEAD ELECTRIC TRAVELING	LANSDALE	1975	10,000	3	1000
AE-153 INA	OVERHEAD ELECTRIC TRAVELING	LANSDALE	1975	10,000	3	1000
AE-169	OVERHEAD ELECTRIC TRAVELING	ACCO BABCOCK	1985	10,000	3	1000
AE-170 INA	OVERHEAD ELECTRIC TRAVELING	ACCO BABCOCK	1985	10,000	3	1000
AE-171 INA	OVERHEAD ELECTRIC TRAVELING	ACCO BABCOCK	1985	10,000	3	1000
AE-154 T	OVERHEAD ELECTRIC TRAVELING	LANSDALE	1975	20,000	2	1000
AE-167 T	OVERHEAD ELECTRIC TRAVELING	ACCO BABCOCK	1985	20,000	2	1000
AE-168 INA	OVERHEAD ELECTRIC TRAVELING	ACCO BABCOCK	1985	20,000	2	1000
AE-151 INA	OVERHEAD ELECTRIC TRAVELING	LANSDALE	1975	60,000	2	1000
RT-635 C (AA-2)	MOBILE	GROVE	1998	70,000	1	N/A

TECHNICAL EXHIBIT J.3-03 GOVERNMENT FURNISHED TOOLS

12/18/03 C-28

QTY	Description of Item	Size	QTY	Description of Item	Size
18	TAP #1	12-28 NF	7	PUNCH	1/4
20	TAP #3	12-28 NF	17	PUNCH	3/16
72	TAP #1	4-40 NF	8	PUNCH	5/16
20	TAP #2	4-40 NF	3	PUNCH	1/2
57	TAP #3	4-40 NF	9	DRILL KEYS	
31	TAP #1	5-40 NF	1	TAPER DRILLS	1 9/16
32	TAP #2	5-40 NF	4	TAPER DRILLS	1 35/64
34	TAP #3	5-40 NF	4	TAPER DRILLS	1 17/32
5	TAP #1	6-32 NF	3	TAPER DRILLS	1 33/64
2	TAP #2	6-32 NF	1	TAPER DRILLS	1 13/16
11	TAP #3	6-32 NF	3	TAPER DRILLS	1 23/32
28	TAP #1	12-28 NF	2	TAPER DRILLS	1 45/64
29	TAP #2	12-28 NF	2	TAPER DRILLS	1 5/8
18	TAP #3	12-28 NF	1	TAPER DRILLS	1 39/64
11	TAP #3	12-28 NF	2	TAPER DRILLS	2 1/8
2	TAP #1	10-24 NF	2	TAPER DRILLS	1 31/32
5	TAP #1	1-72 NF	1	TAPER DRILLS	1 15/16
2	TAP #2	1-72 NF	1	TAPER DRILLS	2 7/8
1	TAP #3	1-72 NF	2	TAPER DRILLS	1 7/8
1	TAP #1	1-64 NF	1	TAPER DRILLS	1 27/32
17	TAP #1	6-40 NF	1	TAPER DRILLS	1 57/64
59	TAP #2	6-40 NF	1	TAPER DRILLS	1 59/64
7	TAP #3	6-40 NF	4	TAPER DRILLS	1/2
7	TAP #1	8-32 NF	3	TAPER DRILLS	3/4
6	TAP #1	8-32 NF	2	TAPER DRILLS	17/32
2	TAP #3	8-32 NF	5	TAPER DRILLS	9/16
1	TAP #1	10-32 NF	1	TAPER DRILLS	35/64
1	TAP #2	10-32 NF	4	TAPER DRILLS	25/32
51	TAP #1	5-44 NF	2	TAPER DRILLS	43/64
4	TAP #2	5-44 NF	1	TAPER DRILLS	19/32
2	TAP #3	5-44 NF	3	TAPER DRILLS	7/8
8	TAP #1	12-24 NF	2	TAPER DRILLS	41/64

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
3	TAP #3	12-24 NF	1	TAPER DRILLS	11/16
1	TAP #1	2-64 NF	1	TAPER DRILLS	19/32
1	TAP #2	2-64 NF	3	TAPER DRILLS	13/64
1	TAP #3	2-64 NF	1	TAPER DRILLS	3/16
2	TAP #1	8-40 NF	3	TAPER DRILLS	5/32
4	TAP #2	8-40 NF	6	TAPER DRILLS	1/8
5	TAP #1	3-56 NF	1	TAPER DRILLS	5/16
5	TAP #2	3-56 NF	6	STRAIGHT SHANK	39/64
43	TAP #3	3-56 NF	1	STRAIGHT SHANK	37/64
3	TAP #1	2-56 NF	1	STRAIGHT SHANK	3/4
2	TAP #3	2-56 NF	1	STRAIGHT SHANK	1/2
5	TAP #1	3-48 NF	1	STRAIGHT SHANK	41/64
3	TAP #2	3-48 NF	1	STRAIGHT SHANK	59/64
3	TAP #3	3-48 NF	6	STRAIGHT SHANK	21/32
6	TAP #1	4-48 NF	1	STRAIGHT SHANK	15/32
1	TAP #2	4-48 NF	3	STRAIGHT SHANK	23/32
4	TAP #3	4-48 NF	12	STRAIGHT SHANK	3/4
2	TAP #1	5-48 NF	1	STRAIGHT SHANK	49/64
1	TAP #1	1/4-20 NF	1	STRAIGHT SHANK	7/8
18	TAP #1	1/4-28 NF	6	STRAIGHT SHANK	31/32
26	TAP #2	1/4-28 NF	3	STRAIGHT SHANK	61/64
4	TAP #3	1/4-28 NF	1	STRAIGHT SHANK	1
1	TAP #2	1-64 NF	2	STRAIGHT SHANK	63/64
3	TAP #3	1-64 NF	1	STRAIGHT SHANK	51/64
1	TAP #1	5-32 NF	1	STRAIGHT SHANK	9/16
2	TAP #2	5-32 NF	1	STRAIGHT SHANK	41/64
2	TAP #2	6-38 NF	1	STRAIGHT SHANK	53/64
1	TAP #2	3-50 NF	1	STRAIGHT SHANK	11/16
15	TAP #1	5/16-24 NF	1	STRAIGHT SHANK	1 5/64
5	TAP #2	5/16-24 NF	1	STRAIGHT SHANK	1 5/16
5	TAP #3	5/16-24 NF	1	SCALE THICKNESS	18 INCH
23	TAP #1	3/8-24 NF	4	SCALE THICKNESS	12 INCH

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
3	TAP #2	3/8-24 NF	2	SCALE THICKNESS	6 INCH
9	TAP #1	3/8-20 NF	1	SCALE THICKNESS	5 INCH
4	TAP #3	3/8-20 NF	3	SCALE THICKNESS	4 INCH
2	TAP #1	7/16-14 NF	4	GAGE, HOLE	SMALL
13	TAP #2	7/16-14 NF	4	TAPER PIPE THREAD PLUG	1/2 - 14
17	TAP #1	7/16-20 NF	4	TAPER PIPE THREAD PLUG	1/4 - 18
9	TAP #2	7/16-20 NF	2	TAPER PIPE THREAD PLUG	1/8 - 27
6	TAP #1	1/2-20 NF	4	TAPER PIPE THREAD PLUG	3/8 - 18
7	TAP #2	1/2-20 NF	2	TAPER PIPE THREAD PLUG	3/4 - 14
5	TAP #1	1/2-24 NF	2	TAPER PIPE THREAD PLUG	1 1/4 - 11 1/2
5	TAP #2	1/2-20 NF	1	TAPER PIPE THREAD PLUG	1 - 11 1/2
3	TAP #3	1/2-28 NF	7	DIVIDER	VARIOUS SIZES
10	TAP #3	1/2-32 NS	17	CALIPERS	VARIOUS SIZES
23	TAP #1	9/16-12 NC	4	BEVEL PROTECTOR W/VERNIER	
22	TAP #2	9/16-12 NC	28	INDICATOR	
25	TAP #3	9/16-12 NC	7	INDICATOR, MAG BASE	
7	TAP #1	9/16-18 NF	22	INDICATOR, MAG BASE	SMALL
5	TAP #2	9/16-18 NF	36	SNAP GAUGES	6 INCH
7	TAP #3	9/16-18 NF	32	SNAP GAUGES	3 1/2
3	TAP #1	9/16-24 NS	10	SNAP GAUGES	2 1/4
3	TAP #2	9/16-24 NS	7	SNAP GAUGES	1 1/4
5	TAP #3	9/16-24 NS	24	SNAP GAUGES	3/4
1	TAP #1	.576-24 NS	2	SNAP GAUGES	1/2
2	TAP #2	.576-24 NS	20	PARALLEL BARS	VARIOUS SIZES
2	TAP #3	.576-24 NS	1	1" DRIVE SOCKET	4 1/2
12	TAP #1	3/8-16 NC	2	1" DRIVE SOCKET	2 5/8
15	TAP #2	3/8-16 NC	4	1" DRIVE SOCKET	2 15/16
1	TAP #1	7/16-12 NC	9	1" DRIVE SOCKET	2
11	TAP #1	5/8-11 NC	12	1" DRIVE SOCKET	2 1/4
23	TAP #2	5/8-11 NC	2	1" DRIVE SOCKET	2 1/2
5	TAP#3	5/8-11 NC	4	1" DRIVE SOCKET	2 1/8
6	TAP #2	5/8-18 NF	5	1" DRIVE SOCKET	2 7/16

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
16	TAP #3	5/8-18 NF	4	1" DRIVE SOCKET	2 3/8
1	TAP #3	3/8-24 NF	5	1" DRIVE SOCKET	2 1/16
6	TAP #1	11/16-11 NS	1	1" DRIVE SOCKET	1 3/4
5	TAP #2	11/16-11 NS	6	1" DRIVE SOCKET	1 7/8
5	TAP #3	11/16-11 NS	4	1" DRIVE SOCKET	1 13/16
1	TAP #1	11/16-16 NS	5	1" DRIVE SOCKET	3
3	TAP #1	11/16-24 NF	3	1" DRIVE SOCKET	3 1/8
1	TAP #2	11/16-24 NF	8	1" DRIVE SOCKET	1 5/8
1	TAP #3	11/16-24 NF	6	1" DRIVE SOCKET	1 11/16
18	TAP #1	3/4-10 NC	4	1" DRIVE SOCKET	1 1/2
13	TAP #2	3/4-10 NC	1	1" DRIVE SOCKET	2 3/16
4	TAP #1	3/4-16 NF	2	1" DRIVE SOCKET	1N3/8
7	TAP #2	3/4-16 NF	3	1" DRIVE SOCKET	1 5/16
13	TAP #3	3/4-16 NF	5	1" DRIVE SOCKET	1 1/8
1	TAP #1	3/4-20 NF	1	1" DRIVE SOCKET	1 3/16
1	TAP #2	3/4-20 NF	1	1" DRIVE SOCKET	1 1/16
2	TAP #1	3/4-24 NS	6	1" DRIVE SOCKET	15/16
1	TAP #2	3/4-24 NS	6	1" DRIVE SOCKET	7/8
3	TAP #3	3/4-24 NS	7	1" DRIVE SOCKET	3/4
2	TAP #2	3/4-32 NF	3	3/4" DRIVE SOCKET	2
3	TAP #3	3/4-32 NF	3	3/4" DRIVE SOCKET	2 1/4
1	TAP #1	3/4-12 NS	2	3/4" DRIVE SOCKET	2 1/8
2	TAP #1	.781-24 NS	2	3/4" DRIVE SOCKET	2 1/16
2	TAP #2	.781-24 NS	1	3/4" DRIVE SOCKET	1 7/8
1	TAP #3	.781-24 NS	1	3/4" DRIVE SOCKET	1 13/16
3	TAP #1	.781-32 NS	1	3/4" DRIVE SOCKET	1 1/8
2	TAP #2	.781-32 NS	3	3/4" DRIVE SOCKET	82MM
2	TAP #3	.781-32 NS	1	3/4" DRIVE SOCKET	30MM
2	TAP #1	13/16-10 NS	6	GEAR BOX	
5	TAP #2	13/16-10 NS	2	RATCHET	1" DRIVE
3	TAP #3	13/16-10 NS	4	RATCHET	3/4" DRIVE
11	TAP #1	7/8-9 NC	1	RATCHET	1/2" DRIVE

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
16	TAP #2	7/8-9 NC	2	OFF SET	1" DRIVE
16	TAP #3	7/8-9 NC	5	TRANSFER PUNCH	SET
10	TAP #1	7/8-14 NF	26	LETTERS STAP SET	1/16, 1/8, 1/4, 3/16, 1/2
12	TAP #2	7/8-14 NF	13	NUMBERS SET	1/16, 1/8, 1/4, 3/16, 1/2
12	TAP #3	7/8-14 NF		GASKET CUTTERS	
1	TAP #2	15/16-9 NS	10	BOARDS	
1	TAP #1	7/8-18- NS	2	BOARDS	SMALL
1	TAP #2	7/8-24 NS	7	CUTTERS KIT	
1	TAP #3	7/8-24 NS	5	CUTTERS KIT	SMALL
2	TAP #1	7/8-28 NS	5	PIPE DIES	1/8
1	TAP #2	7/8-28 NS	3	PIPE DIES	1/4
3	TAP #3	7/8-28 NS	3	PIPE DIES	3/8
1	TAP #1	7/8-32 NS	2	PIPE DIES	1
3	TAP #2	7/8-32 NS	2	PIPE DIES	1 1/4
2	TAP #1	15/16-9 NS	2	PIPE DIES	1 1/2
1	TAP #2	15/16-9 NS	2	PIPE DIES	2
3	TAP #1	1-8 NC	6	PIPE DIES, SMALL	1/8
10	TAP #2	1-8 NC	4	PIPE DIES, SMALL	1/4
7	TAP #3	1-8 NC	7	PIPE DIES, SMALL	3/8
2	TAP #1	1-10 NS	2	PIPE DIES, SMALL	1/2
5	TAP #2	1-10 NS	2	PIPE DIES, SMALL	3/4
3	TAP #3	1-10 NS	3	PIPE DIES, SMALL	1
5	TAP #1	1-12 NF	4	PIPE DIES, SMALL	1 1/4
10	TAP #1	1-14 NF	8	PIPE DIES, SMALL	1/8
11	TAP #2	1-14 NF	5	PIPE DIES, SMALL	1/4
13	TAP #3	1-14 NF	7	PIPE DIES, SMALL	3/8
2	TAP #1	1-16 NS	1	PIPE DIES, SMALL	1/2
1	TAP #2	1-16 NS	1	PIPE DIES, SMALL	3/4
1	TAP #3	1-16 NS	1	PIPE DIES, SMALL	1
1	TAP #1	1-20 NS	4	HANDLE	SMALL

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	TAP #2	1-20 NS	1	HANDLE	MEDIUM
1	TAP #3	1-20 NS	1	HANDLE	LARGE
					1/8, 1/4, 3/8, 3/4,1, 1
1	TAP #1	1 1/16-8 NC	2	SET	1/4, 1 1/2, 2
2	TAP #2	1 1/16-8 NC	1	RIDGED 700	
2	TAP #1	1 1/16-12 NS		RIDGED	1" - 2"
1	TAP #2	1 1/16-12 NS		RIDGED EXTRACTORS SET #25	
1	TAP #3	1 1/16-12 NS	3	PIPE DIE NUTS	1/2 - 14 NPT
1	TAP #3	1 1/16-16 NS	5	PIPE DIE NUTS	1/4 - 18 NPT
1	TAP #2	1 1/16-32 NS	1	PIPE DIE NUTS	1/8 - 27 NPT
1	TAP #3	1 1/16-32 NS	2	PIPE DIE NUTS	1/4R - 54 NPT
1	TAP #2	1 1/8-16 NS	4	PIPE DIE NUTS	3/4 - 14 NPT
1	TAP #1	1 1/8-18 NS	4	PIPE DIE NUTS	3/8 - 18 NPT
5	TAP #2	1 1/8-18 NS	1	PIPE DIE NUTS	3/8R - 103 NPT
3	TAP #3	1 1/8-18 NS	3	PIPE DIE NUTS	1R - 34 NPT
1	TAP #2	1 1/8-20 NS	3	PIPE DIE NUTS	1 1/4R - 24 NPT
1	TAP #1	1 3/16-7 NC	1	PIPE DIE NUTS	1 1/4R - 44 NPT
1	TAP #2	1 3/16-7 NC	2	PIPE DIE NUTS	1 1/2 - 11 1/2 NPT
1	TAP #3	1 3/16-7 NC	2	PIPE DIE NUTS	2R NPT
6	TAP EXT#1	3/16-24 NS	1	PIPE DIE NUTS	1 1/2R - 112 NPT
7	TAP EXT#1	5/16-18 NC	1	PIPE DIE NUTS	1 1/2R - 24 NPT
1	TAP EXT#1	1/4-20 NC	3	PIPE DIE NUTS	2 1/2R NPT
1	TAP EXT#1	10-24 NC	1	PIPE DIE NUTS	3R NPT
10	TAP #1	1 1/8-7 NC	3	RETHREADING TOOLS	
9	TAP #2	1 1/8-7 NC	4	CHASER	
11	TAP #3	1 1/8-7 NC	2	DIES	1/2 - 14 NPT
11	TAP #1	1 1/8-12 NF	2	DIES	7/16 - 20 NF
12	TAP #2	1 1/8-12 NF	1	DIES	1/4 - 20 NC
4	TAP #3	1 1/8-12 NF	10	DIES	3/4 - 16 NF
4	TAP #1	1 1/4-7 NC	3	DIES	7/8 - 9 NC
7	TAP #2	1 1/4-7 NC	12	DIES	1 - 14 NF
8	TAP #3	1 1/4-7 NC	1	DIES	1 - 10 NS

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
8	TAP #1	1 1/4-8 NC	5	DIES	1 - 8 NC
7	TAP #1	1 1/4-12 NF	11	DIES	3/4 - 10 NC
7	TAP #2	1 1/4-12 NF	13	DIES	7/8 - 9 NC
2	TAP #3	1 1/4-12 NF	3	DIES	11/16 - 16 NS
7	TAP #1	1 3/8-12 NF	2	DIES	11/16 - 11 HS
3	TAP #2	1 3/8-12 NF	6	DIES	1 - 12 NF
3	TAP #3	1 3/8-12 NF	22	DIES	5/8 - 11 NC
11	TAP #1	1 1/2-6 NC	7	DIES	5/8 - 18 NF
4	TAP #2	1 1/2-6 NC	12	DIES	9/16 - 12 NC
5	TAP #3	1 1/2-6 NC	1	DIES	7/8 - 14 NF
4	TAP #1	1 1/8-8 NC	2	DIES	9/16 - 18 NF
4	TAP #2	1 1/8-8 NC	2	DIES	1 1/8 - 7 NC
3	TAP #1	1 1/4-8 NC	7	DIES	1 1/8 - 12 NF
3	TAP #2	1 1/4-8 NC	2	DIES	1 1/8 - 8 N
5	TAP #3	1 1/4-8 NC	11	DIES	1 1/4 - 7 NC
4	TAP #1	1 3/8-6 NC	3	DIES	1 1/4 - 8 N
4	TAP #2	1 3/8-6 NC	6	DIES	1 1/4 - 12 NF
6	TAP #3	1 3/8-6 NC	3	DIES	1 3/8 - 6 NC
2	TAP #1	1 3/8-8 NC	3	DIES	1 3/8 - 8 N
2	TAP #2	1 1/2-12 NC	1	DIES	1 3/8 - 12 NF
3	TAP #1	1 1/2-12 NF		DIES	1 3/8 - 14 NS
6	TAP #2	1 1/2-12 NF	9	DIES	1 1/2 - 8 NS
2	TAP #3	1 1/2-12 NF	1	DIES	1 3/4 - 8 NS
3	TAP #1	1 1/2-8 NS	3	DIES	1 1/2 - 12 NF
2	TAP #2	1 1/2-8 NS	8	DIES	1 1/2 - 6 NC
4	TAP #3	1 1/2-8 NS	6	HANDLES	
1	TAP #1	1 1/4-20 NS	5	GASKET PUNCH	1/8
1	TAP #1	1 3/8-20 NS	27	GASKET PUNCH	3/16
2	TAP #1	1 1/2-16 NS	17	GASKET PUNCH	1/4
1	TAP #3	1 1/2-18 NF	21	GASKET PUNCH	5/16
1	TAP #1	1 1/2-20 NF	12	GASKET PUNCH	7/16
1	TAP #3	1 1/2-20 NF	9	GASKET PUNCH	3/8

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	TAP #2	1 5/8-32 NF	5	GASKET PUNCH	1/2
30	TAP #1	3/4-10	6	GASKET PUNCH	9/16
1	TAP #1	1 3/4-5 NC	8	GASKET PUNCH	5/8
2	TAP #2	1 3/8-8 NC	8	GASKET PUNCH	11/16
1	TAP #1	1 1/2-6 NC	6	GASKET PUNCH	3/4
1	TAP #1	1-8 NC	7	GASKET PUNCH	7/8
1	TAP #2	1-8 NC	8	GASKET PUNCH	13/16
1	TAP #3	1-8 NC	7	GASKET PUNCH	15/16
6	TAP #2	7/16-14 NC	3	GASKET PUNCH	1 5/16
2	TAP #2	9/16-12 NC	11	GASKET PUNCH	1
1	TAP #3	2-14 NC	5	GASKET PUNCH	1 1/8
1	TAP #3	3/4-12 NC	6	GASKET PUNCH	1 3/16
8	TAP #3	1 1/4-7 NC	5	GASKET PUNCH	1 1/4
1	TAP #2	2 1/16-32 NS	2	GASKET PUNCH	1 3/8
2	TAP	1/8-27 NPT	4	GASKET PUNCH	1 7/16
8	TAP	3/4-14 NPT	5	GASKET PUNCH	1 1/2
8	TAP	1-11 1/2 NPT	2	GASKET PUNCH	1 9/16
8	TAP	1 1/4-11 1/2 NPT	1	GASKET PUNCH	1 5/8
4	TAP	1 1/2-11 1/2 NPT	1	GASKET PUNCH	1 11/16
2	TAP #2	1 3/4-12 NS	9	GASKET PUNCH	1 3/4
1	TAP #1	1 1/2-12 NF	2	GASKET PUNCH	1 13/16
2	TAP	1 1/4-11 1/2 NPT	1	GASKET PUNCH	1 7/8
2	TAP	2-11 1/2 NPT	1	GASKET PUNCH	1 15/16
15	EASE OUT	#5	4	GASKET PUNCH	2
28	EASE OUT	#6	1	GASKET PUNCH	2 1/2
10	EASE OUT	#7	1	COMBINATION WRENCH	19MM
17	EASE OUT	#8	1	COMBINATION WRENCH	21MM
14	EASE OUT	#9	1	COMBINATION WRENCH	23MM
2	EASE OUT	#1	1	COMBINATION WRENCH	27MM
4	EASE OUT	3/16-	1	COMBINATION WRENCH	36MM
4	EASE OUT	16/64	1	COMBINATION WRENCH	34MM
15	EASE OUT	5/16	6	COMBINATION WRENCH	32MM

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	EASE OUT	3/8	5	COMBINATION WRENCH	30MM
1	EASE OUT	9/16	5	COMBINATION WRENCH	1 3/4
1	EASE OUT	#10	1	COMBINATION WRENCH	1 13/16
1	EASE OUT	#11	1	COMBINATION WRENCH	1 7/8
1	EASE OUT	#12	2	COMBINATION WRENCH	2 1/4
8	TAP EXTRACTOR	1/4	38	COMBINATION WRENCH	13/16
4	TAP EXTRACTOR	5/16	41	COMBINATION WRENCH	1
3	TAP EXTRACTOR	3/8	26	COMBINATION WRENCH	7/8
20	TAP EXTRACTOR	7/16	6	COMBINATION WRENCH	16/16
24	TAP EXTRACTOR	1/2	11	COMBINATION WRENCH	1 1/16
11	TAP EXTRACTOR	9/16	18	COMBINATION WRENCH	1 1/4
5	TAP EXTRACTOR	1	15	COMBINATION WRENCH	1 5/16
4	TAP EXTRACTOR	7/8	15	COMBINATION WRENCH	1 7/16
4	TAP EXTRACTOR	3/4	14	COMBINATION WRENCH	1 1/2
4	TAP EXTRACTOR	5/8	1	COMBINATION WRENCH	1 5/8
13	TAP EXTRACTOR	3/8	7	COMBINATION WRENCH	1 11/16
1	SCREW EXTRATOR SET		15	COMBINATION WRENCH	5/8
20	TIP HANDLE		9	COMBINATION WRENCH	11/16
11	1/2" DRIVE DEEPWELL SKT	11/16	1	COMBINATION WRENCH	1 1/8
8	1/2" DRIVE SOCKET	13/16	2	COMBINATION WRENCH	1 3/8
2	1/2" DRIVE SOCKET	7/8	12	PIPE WRENCH	24 INCH
2	1/2" DRIVE SOCKET	1	6	PIPE WRENCH	36 INCH
1	1/2" DRIVE SOCKET	1 1/2	1	PIPE WRENCH	48 INCH
1	1/2" DRIVE SOCKET	1 9/16	8	STRAP WRENCH	
1	1/2" DRIVE DEEPWELL SKT	1 9/16	12	REPLACEMENT STRAPS	
1	1/2" DRIVE DEEPWELL SKT	5/8	21	TAPER PINS	
4	1/2" DRIVE DEEPWELL SKT	1	7	CHISEL	1/4
6	1/2" DRIVE DEEPWELL SKT	1 1/16	7	CHISEL	5/16
4	1/2" DRIVE SOCKET	1/2 UNIVERSAL	3	CHISEL	1/2
4	1/2" DRIVE SOCKET	7/16	55	CHISEL	1/2 - 1
1	1/2" DRIVE SOCKET	5/8	3	CHISEL, STAR	
4	1/2" DRIVE SOCKET	11/16	5	NAIL PULLER	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
7	1/2" DRIVE SOCKET	13/16	2	SHEAR	LARGE
7	1/2" DRIVE SOCKET	7/8	1	SHEAR	SMALL
5	1/2" DRIVE SOCKET	1	16	SOCKET, ALLEN WRENCH	3/4
1	1/2" DRIVE SOCKET	1 1/4	4	SOCKET, ALLEN WRENCH	14MM
1	1/2" DRIVE SOCKET	13MM	2	SOCKET, ALLEN WRENCH	7/16
2	1/2" DRIVE SOCKET	15MM	2	SOCKET, ALLEN WRENCH	9/16
3	1/2" DRIVE SOCKET	17MM	2	SOCKET, ALLEN WRENCH	5/8
2	1/2" DRIVE SOCKET	18MM	4	SOCKET, ALLEN WRENCH	17MM
2	1/2" DRIVE SOCKET	21MM	1	SOCKET, ALLEN WRENCH	19MM
2	1/2" DRIVE SOCKET	24MM	8	STEEL WEDGE	
1	1/2" DRIVE SOCKET	1 1/2	9	DIE	0 - 80 NC
1	1/2" DRIVE SOCKET	1 7/16	1	DIE	1 - 64 NC
5	SPEED WRENCH		1	DIE	1 - 72 NF
5	RATCHET	'3/4" DRIVE	1	DIE	2 - 56 NC
5	UNIVERSAL	3/4	1	DIE	2 - 64 NF
20	BREAKER BARS	3/4	1	DIE	3 - 48 NC
18	3/4" EXTENSION	12"	1	DIE	3 - 56 NF
31	3/4" EXTENSION	6"	21	DIE	4 - 40 NC
4	3/4" EXTENSION	2"	1	DIE	4 - 48 NF
5	ADAPTER	3/4" MALE x 1" FEMALE	21	DIE	5 - 40 NC
3	ADAFTER	3/4" FEMALE x 1"	<u> </u>	DIE	5 - 40 INC
12	ADAPTER	MALE	16	DIE	5 - 44 NF
1	3/4" DRIVE SOCKET	31/32	4	DIE	5 - 44 NF
2	3/4" DRIVE SOCKET	7/8	7	DIE	6 - 32 NC
7	3/4" DRIVE SOCKET	15/16	4	DIE	6 - 40 NF
5	3/4" DRIVE SOCKET	1	9	DIE	8 - 32 NC
7	3/4" DRIVE SOCKET	1 1/16	22	DIE	8 - 36 NF
17	3/4" DRIVE SOCKET	1 1/8	71	DIE	10 - 32 NF
15	3/4" DRIVE SOCKET	1 3/16	30	DIE	10 - 32 NC
9	3/4" DRIVE SOCKET	1 1/4	14	DIE	12 - 24 NC
2	3/4" DRIVE DEEPWELL SKT	1 5/16	1	DIE	12-24 NG

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
15	3/4" DRIVE SOCKET	1 5/16	21	DIE	1/4 - 28 NF
1	3/4" DRIVE DEEPWELL SKT	1 3/8	28	DIE	1/4 - 20 NC
8	3/4" DRIVE SOCKET	1 3/8	35	DIE	5/16 - 18 NC
1	3/4" DRIVE DEEPWELL SKT	1 7/16	17	DIE	5/16 - 24 NF
5	3/4" DRIVE SOCKET	1 7/16	15	DIE	3/8 - 16 NC
2	3/4" DRIVE DEEPWELL SKT	1 1/2	8	DIE	3/8 - 24 NF
7	3/4" DRIVE SOCKET	1 1/2	25	DIE	7/16 - 14 NC
1	3/4" DRIVE SOCKET	1 9/16	12	DIE	7/16 - 20 NF
7	3/4" DRIVE SOCKET	1 5/8	10	DIE	1/2 - 13 NC
4	3/4" DRIVE SOCKET	1 11/16	14	DIE	1/2 - 20 NF
5	3/4" DRIVE SOCKET	1 3/4	1	DIE	9/16 - 18 NC
7	3/4" DRIVE SOCKET	1 13/16	1	DIE	24MM
10	3/4" DRIVE SOCKET	1 7/8	9	HANDLES	3/16
1	3/4" DRIVE SOCKET	1 15/16	2	HANDLES	5/8
1	3/4" DRIVE DEEPWELL SKT	2	2	HANDLES	1
8	3/4" DRIVE SOCKET	2	2	HANDLES	1 1/2
6	3/4" DRIVE SOCKET	2 1/16	2	DIE NUTS	10 - 32 NF
1	3/4" DRIVE DEEPWELL SKT	2 1/8	1	DIE NUTS	8 - 32 NC
6	3/4" DRIVE SOCKET	2 1/8	1	DIE NUTS	12 - 24 NC
4	3/4" DRIVE SOCKET	1 1/8	2	DIE NUTS	?? - 40 NC
17	3/4" DRIVE SOCKET	1 3/16	16	DIE NUTS	6 - 32 NC
10	3/4" DRIVE SOCKET	1 5/16	13	DIE NUTS	8 - 32 NC
10	3/4" DRIVE SOCKET	1 1/16	1	DIE NUTS	10 - 32 NF
13	3/4" DRIVE SOCKET	1 7/8	9	DIE NUTS	10 - 24 NC
5	3/4" DRIVE SOCKET	1 13/16	15	DIE NUTS	12 - 24 NC
5	3/4" DRIVE SOCKET	2 1/4	10	DIE NUTS	1/4 - 20 NC
8	3/4" DRIVE SOCKET	1 1/4	20	DIE NUTS	1/4 - 28 NF
9	3/4" DRIVE SOCKET	1 7/16	1	DIE NUTS	1/4 - 32 ??
1	3/4" DRIVE SOCKET	1 11/16	24	DIE NUTS	5/16 - 18 NC
5	3/4" DRIVE SOCKET	1 5/8	16	DIE NUTS	5/16 - 24 NF
3	3/4" DRIVE SOCKET	1 3/4	2	DIE NUTS	5/16 - 32 NEF
14	3/4" DRIVE SOCKET	1 1/2	1	DIE NUTS	3/8 - 16 NC

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
3	3/4" DRIVE SOCKET	1 3/8	1	DIE NUTS	3/8 - 24 NF
1	3/4" DRIVE SOCKET	1 5/16	21	DIE NUTS	7/16 - 20 NF
4	3/4" DRIVE SOCKET	2 3/8	3	DIE NUTS	7/16 - 14 NC
5	3/4" DRIVE SOCKET	2 3/16	4	DIE NUTS	1/2 - 13 NC
2	3/4" DRIVE SOCKET	2	18	DIE NUTS	1/2 - 20 NF
6	3/4" DRIVE SOCKET	2 3/16	4	DIE NUTS	1/2 - 24 NS
1	3/4" DRIVE SOCKET	2 1/4	2	DIE NUTS	9/16 - 12 NC
3	3/4" DRIVE SOCKET	2 3/8	5	DIE NUTS	9/16 - 18 NF
1	1/2" DRIVE SOCKET	13MM	3	DIE NUTS	5/8 - 18 NF
1	1/2" DRIVE SOCKET	19MM	2	DIE NUTS	3/4 - 10 NC
2	1/2" DRIVE SOCKET	20MM	7	DIE NUTS	3/4 - 16 NF
4	1/2" DRIVE SOCKET	21MM	1	DIE NUTS	13/16 - 10 NS
1	1/2" DRIVE SOCKET	22MM	6	DIE NUTS	7/8 - 14 NF
4	1/2" DRIVE SOCKET	23MM	17	DIE NUTS	7/8 - 6 NC
1	1/2" DRIVE SOCKET	24MM	1	DIE NUTS	7/8 - 12 N
5	1/2" DRIVE SOCKET	25MM	1	DIE NUTS	7/8 - 18 NS
4	1/2" DRIVE SOCKET	26MM	5	DIE NUTS	1 - 8 NC
6	1/2" DRIVE SOCKET	27MM	12	DIE NUTS	1 - 12 NF
2	1/2" DRIVE SOCKET	28MM	5	DIE NUTS	1 - 14 NS
6	1/2" DRIVE SOCKET	29MM	5	DIE NUTS	1 1/8 - 7 NC
6	1/2" DRIVE SOCKET	30MM	8	DIE NUTS	1 1/8 - 12 NF
8	1/2" DRIVE SOCKET	31MM	4	DIE NUTS	1 1/8 - 8 NS
5	1/2" DRIVE SOCKET	32MM	4	DIE NUTS	1 1/4 - 7 NC
2	1/2" DRIVE DEEPWELL SKT	12MM	19	DIE NUTS	1 1/4 - 8 N
1	1/2" DRIVE DEEPWELL SKT	13MM	3	DIE NUTS	1 1/4 - 12 NF
1	1/2" DRIVE DEEPWELL SKT	18MM	6	DIE NUTS	1 1/2 - 8 NS
1	1/2" DRIVE DEEPWELL SKT	19MM	5	DIE NUTS	1 1/2 - 6 NC
2	1/2" DRIVE DEEPWELL SKT	21MM	18	DIE NUTS	1 1/2 - 12 NF
1	1/2" DRIVE DEEPWELL SKT	25MM	7	DIE NUTS	1 3/8 - 6 NC
1	1/2" DRIVE DEEPWELL SKT	26MM	3	DIE NUTS	1 3/8 - 8 NS
4	1/2" DRIVE DEEPWELL SKT	27MM	2	DIE NUTS	1 3/8 - 12 NF
1	1/2" DRIVE DEEPWELL SKT	28MM	3	DIE NUTS	1 3/8 - 18 NS

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
		1/2" MALE x '3/4"			
2	ADAPTER	FEMALE	2	DIE NUTS	1 3/4 - 12 N
2	1/2" DRIVE DEEPWELL SKT	29MM	10	HOLE SAW	1 3/4
3	1/2" DRIVE DEEPWELL SKT	30MM	3	HOLE SAW	1 7/8
2	1/2" DRIVE DEEPWELL SKT	31MM	2	HOLE SAW	2 1/4
1	1/2" DRIVE DEEPWELL SKT	32MM	3	HOLE SAW	2 3/8
1	3/4" DRIVE SOCKET	10MM	2	HOLE SAW	2 1/2
1	3/4" DRIVE SOCKET	13MM	10	HOLE SAW	2 3/4
1	3/4" DRIVE SOCKET	15MM	4	HOLE SAW	2 5/8
3	3/4" DRIVE SOCKET	17MM	7	HOLE SAW	2 7/8
3	3/4" DRIVE SOCKET	18MM	1	HOLE SAW	3 3/4
1	3/4" DRIVE SOCKET	19MM	1	HOLE SAW	3 7/8
1	3/4" DRIVE SOCKET	5/16	4	HOLE SAW	3
1	3/4" DRIVE SOCKET	7/16	49	HOLE SAW	3 1/2
4	3/4" DRIVE SOCKET	1/2	9	HOLE SAW	3 1/4
2	3/4" DRIVE SOCKET	11/16	2	HOLE SAW	3 3/8
1	3/4" DRIVE SOCKET	13/16	2	HOLE SAW	3 3/4
3	3/4" DRIVE SOCKET	7/8	4	HOLE SAW	3 5/8
1	3/4" DRIVE DEEPWELL SKT	9/16	1	HOLE SAW	5
1	3/4" DRIVE DEEPWELL SKT	5/8	2	HOLE SAW	5 3/4
1	3/4" DRIVE SOCKET	5/8	1	HOLE SAW	6
1	3/4" DRIVE SOCKET	3/4	6	HOLE SAW	1 1/4
1	3/4" DRIVE DEEPWELL SKT	13/16	2	HOLE SAW	1 1/16
2	3/8" DRIVE EXTENTION	10 INCH	11	HOLE SAW	1 1/8
1	3/8" DRIVE EXTENTION	7 INCH	19	ALLEN WRENCH	1/32
1	3/8" DRIVE EXTENTION	5 INCH	110	ALLEN WRENCH	3/64
4	3/8" DRIVE EXTENTION	17 INCH	20	ALLEN WRENCH	1/16
2	UNIVERSAL	3/4" DRIVE	18	ALLEN WRENCH	7/64
1	UNIVERSAL	1/2" DRIVE	20	ALLEN WRENCH	7/32
4	SPEED WRENCH	3/8" DRIVE	9	ALLEN WRENCH	1/4
27	BALL PEEN HAMMERS		6	ALLEN WRENCH	7/16

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
		3/4" FEMALE x 1"			
8	ADAPTER	MALE	18	ALLEN WRENCH	9/16
15	UNIVERSAL	3/4 INCH	16	ALLEN WRENCH	5/8
11	RATCHET	1" DRIVE	12	ALLEN WRENCH	3/4
8	BREAKER BAR	1" DRIVE	1	ALLEN WRENCH	7/8
15	1" DRIVE EXTENSION	14 INCH	1	ALLEN WRENCH	1
14	1" DRIVE EXTENSION	6 INCH	1	ALLEN WRENCH	5MM
1	1" DRIVE EXTENSION	17 INCH	1	ALLEN WRENCH	14MM
8	1" DRIVE EXTENSION	5 INCH	4	ALLEN WRENCH	17MM
1	1" DRIVE SOCKET	1 3/8	2	ALLEN WRENCH	19MM
5	1" DRIVE SOCKET	1 7/16	1	ALLEN WRENCH	1/2
4	1" DRIVE SOCKET	1 15/16	12	CENTER PUNCH	
1	1" DRIVE SOCKET	1 11/16	5	SCREW DRIVER	LARGE, FLAT
9	1" DRIVE SOCKET	1 1/2	3	SCREW DRIVER	MEDIUM
7	1" DRIVE SOCKET	1 13/16	6	SCREW DRIVER	SMALL
3	1" DRIVE SOCKET	1 5/8	3	SCREW DRIVER	PHILLIPS
8	1" DRIVE SOCKET	1 3/4	3	SCREW DRIVER	OFF SET FLAT
5	1" DRIVE SOCKET	1 11/16	1	SCREW DRIVER	OFF SET PHILLIPS
6	1" DRIVE SOCKET	1 7/8		NUT DRIVER	3/8, 7/16, 3/8, 5/8
6	1" DRIVE SOCKET	2	54	SPECIAL WRENCHES	
4	1" DRIVE SOCKET	2 3/16	3	WRENCH	19/32 - 11/16
3	1" DRIVE SOCKET	2 1/4	2	WRENCH	7/8
1	1" DRIVE SOCKET	2 3/4	3	WRENCH	11/16
2	1" DRIVE SOCKET	2 5/16	1	WRENCH	11/16 - 1/2
4	1" DRIVE SOCKET	2 5/8	8	WRENCH	3/4
6	1" DRIVE SOCKET	2 3/8	1	WRENCH	1/2 - 3/4
3	1" DRIVE SOCKET	2 7/16	1	WRENCH	1/2 - 9/16
2	1" DRIVE SOCKET	2 9/16	1	WRENCH	7/16 - 9/16
1	1" DRIVE SOCKET	2 3/4	2	WRENCH	7/16
3	1" DRIVE SOCKET	2 13/16	2	WRENCH	9/16
1	3/4" DRIVE SOCKET	17MM	20	WRENCH	2
1	3/4" DRIVE SOCKET	20MM	7	WRENCH	2 1/2

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
2	3/4" DRIVE SOCKET	22MM	1	WRENCH	1 9/16
1	3/4" DRIVE SOCKET	31MM	2	WRENCH	1 3/4
4	3/4" DRIVE SOCKET	32MM	1	WRENCH	2 1/4
1	3/4" DRIVE SOCKET	40MM	2	WRENCH	22-10 1-9 TYPE W
1	3/4" DRIVE SOCKET	41MM	1	WRENCH	18-14 TYPE F
1	3/4" DRIVE SOCKET	55MM	1	WRENCH	20-18 TYPE F
2	3/4" DRIVE SOCKET	60MM	2	WRENCH	MOD C
1	3/4" DRIVE SOCKET	34MM	1	WRENCH	AC TYPE F
1	3/4" DRIVE SOCKET	24MM	1	WRENCH	MOD V
4	3/4" DRIVE SOCKET	35MM	1	WRENCH	22-16 1-2
1	3/4" DRIVE SOCKET	46MM	1	WRENCH	32 - 28
1	1 1/2" DRIVE SOCKET	3 15/16	1	WRENCH	17 - 02
					PLASTIC, GLASS,
1	1 1/2" DRIVE SOCKET	4 7/8	16	WRENCH	CERAMIC
3	1 1/2" DRIVE SOCKET	4 1/4	6	MECHANICAL FINGERS	
1	1 1/2" DRIVE SOCKET	4 7/16	14	INSPECTION MIRROR	LARGE
1	1 1/2" DRIVE SOCKET	4 5/16	5	INSPECTION MIRROR	SMALL
1	1 1/2" DRIVE SOCKET	4 5/8	2	INSPECTION MIRROR	ROUND
1	1 1/2" DRIVE SOCKET	4 1/2	33	SPARE MIRRORS	
1	1 1/2" DRIVE SOCKET	3 3/8	2	UTILITY KNIVES	
1	1 1/2" DRIVE SOCKET	2 7/8	2	PLUMB	
1	1 1/2" DRIVE SOCKET	1 15/16	2	THREAD	50M
1	1 1/2" DRIVE SOCKET	2 3/4		THREAD	N 6
1	1 1/2" DRIVE SOCKET	2	2	THREAD	J 7
2	1 1/2" DRIVE SOCKET	2 15/16	2	THREAD	H 8
1	1 1/2" DRIVE SOCKET	2 1/4	1	THREAD	J 1
1	1 1/2" DRIVE SOCKET	1 3/8	1	THREAD	G 5
2	1 1/2" DRIVE SOCKET	2 1/8	1	THREAD	16
1	1 1/2" DRIVE SOCKET	2 3/16	6	THREAD	J 6
2	1 1/2" DRIVE SOCKET	2 9/16	2	THREAD	J 5
2	1 1/2" DRIVE SOCKET	2 5/8	6	THREAD	J 3
1	1 1/2" DRIVE SOCKET	2 7/16	2	THREAD	I 10

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
3	1 1/2" DRIVE SOCKET	3 1/8	1	THREAD	H 7
1	1 1/2" DRIVE SOCKET	2 1/2	1	THREAD	F 2
1	1 1/2" DRIVE SOCKET	2 3/4	1	THREAD	H 2
3	1 1/2" DRIVE SOCKET	3	1	THREAD	A 1
2	1 1/2" DRIVE SOCKET	2 15/16	2	THREAD	H 4
1	1 1/2" DRIVE SOCKET	4 1/8	1	THREAD	G 9
1	1 1/2" DRIVE SOCKET	2 13/16	2	THREAD	H 9
2	1 1/2" DRIVE SOCKET	3 1/2	1	THREAD	H 6
1	1 1/2" DRIVE SOCKET	3 3/4	2	THREAD	H 11
1	1 1/2" DRIVE SOCKET	6	1	THREAD	G 11
1	1 1/2" DRIVE SOCKET	1 1/2	1	THREAD	L 1
1	1 1/2" DRIVE SOCKET	2 1/16	1	THREAD	H 11
1	1" DRIVE SOCKET	2 7/8	1	THREAD	H 10
1	1" DRIVE SOCKET	2 1/4	1	THREAD	N 20
2	1" DRIVE SOCKET	2 13/16	1	THREAD	K3
2	1" DRIVE SOCKET	2 9/16	1	THREAD	J 8
1	1" DRIVE SOCKET	2 1/16	1	THREAD	30
1	1" DRIVE SOCKET	3	2	THREAD	N 20
2	1" DRIVE SOCKET	2 5/8	1	THREAD	18
1	1" DRIVE SOCKET	3 3/8	1	THREAD	17
2	1" DRIVE SOCKET	2 1/2	1	THREAD	1
1	1" DRIVE SOCKET	3 1/2	4	THREAD	75MM - 1.00MM
1	1" DRIVE SOCKET	2 7/16	4	THREAD	1.75MM - 2.00MM
4	1" DRIVE SOCKET	2 3/4	5	THREAD	2.50MM - 3.00MM
1	1" DRIVE SOCKET	2 5/16	4	THREAD	3.50MM - 4.00MM
1	1" DRIVE SOCKET	3 1/4	4	THREAD	1.25MM - 1.50MM
2	1" DRIVE SOCKET	1 11/16	3	THREAD	4.50MM - 5.00MM
1	1" DRIVE SOCKET	2 5/16	1	THREAD	7 - 9
2	1" DRIVE SOCKET	3 1/8	1	THREAD	4 - 5
3	1" DRIVE SOCKET	2 3/8	1	THREAD	8 - 9
1	1" DRIVE SOCKET	1 1/2	1	THREAD	13 - 14
4	1" DRIVE SOCKET	2	1	THREAD	11 1/2 - 12

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
2	1" DRIVE SOCKET	2 1/4	1	THREAD	20 - 24
2	1" DRIVE SOCKET	1 5/8	1	THREAD	10 - 11
1	1" DRIVE SOCKET	1 13/16	1	THREAD	1/2
2	1" DRIVE SOCKET	1 7/8	1	THREAD	3/8
1	1" DRIVE SOCKET	3 1/2	2	THREAD	3/4
2	1" DRIVE SOCKET	1 3/4	32	TEE WRENCHES	ASSORTED
1	1" DRIVE SOCKET	2 5/8		POP RIVETS	ASSORTED
1	1" DRIVE SOCKET	1 1/8	2	SNAP RING KIT	
1	1" DRIVE SOCKET	1 1/4	3	TORQUE MUL	3/4" DRIVE
1	3/8" DRIVE CROWS FOOT	3/8	6	TORQUE MUL	1" DRIVE
1	3/8" DRIVE CROWS FOOT	9/16	4	OPEN END RATCHET SET	
2	3/8" DRIVE CROWS FOOT	3/4	1	SAW BLADE	10 INCH
6	3/8" DRIVE CROWS FOOT	7/8	2	SAW BLADE	9 INCH
3	3/8" DRIVE CROWS FOOT	15/16	1	SAW BLADE	8 INCH
3	3/8" DRIVE CROWS FOOT	1 1/4	50	HACK SAW BLADES	
2	3/8" DRIVE CROWS FOOT	1 5/16	4	HAND SAW	
2	3/8" DRIVE CROWS FOOT	3/8	2	TUBE BENDER	1/2
5	3/8" DRIVE CROWS FOOT	5/8	1	TUBE BENDER	3/8
8	3/8" DRIVE CROWS FOOT	11/16	6	TUBE BENDER	3/4
7	3/8" DRIVE CROWS FOOT	3/4	1	TUBE BENDER	1/8
10	3/8" DRIVE CROWS FOOT	13/16	18	TUBE FLEAR KIT	
11	3/8" DRIVE CROWS FOOT	7/8	6	PIPE BENDER	3/4 - 1/2
5	3/8" DRIVE CROWS FOOT	15/16	2	PIPE BENDER	1 - 3/4
14	3/8" DRIVE CROWS FOOT	1	4	PIPE CUTTER	4 - 5
13	3/8" DRIVE CROWS FOOT	1 1/16	145	WHEEL	1 - 2
1	3/8" DRIVE CROWS FOOT	1 3/16	12	WHEEL	4 - 5
1	3/8" DRIVE CROWS FOOT	1 5/16	1	COMB SQUARE	
1	3/8" DRIVE CROWS FOOT	1 7/16	44	COMB SQUARE PARTS	
1	3/8" DRIVE CROWS FOOT	2	1	TORQUE WRENCH *	300-2000 FT LB, 1" DRIVE
1	TUBE WRENCH	5/8	3	TORQUE WRENCH *	0-1000 FTLB, 1" DRIVE

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	TUBE WRENCH	7/8	1	TORQUE WRENCH *	0-600 FTLB, 3/4" DRIVE
1	TOBE WINEIROTT	170	1	TORQUE WILLION	0-1400 FTLB, 1"
3	TUBE WRENCH	15/16	1	TORQUE WRENCH	DRIVE
					0-1000 FTLB, 1"
1	TUBE WRENCH	1	1	TORQUE WRENCH *	DRIVE
	TUDE WEENOU	4 4/40	4	TODOLIE MIDENOLL *	0-1500 FTLB, 1"
4	TUBE WRENCH	1 1/16	1	TORQUE WRENCH *	DRIVE
4	TUBE WRENCH	1 1/8	1	TORQUE WRENCH *	0-2000 FTLB, 1" DRIVE
4	TOBE WILLIAM	1 1/0	1	TORQUE WILLION	0-2000 FTLB, 1"
3	TUBE WRENCH	1 3/16	1	TORQUE WRENCH *	DRIVE
	1002 111(211011	1 0,10		TOTAGE TITLE TOTAGE	100-600 FTLB, 3/4"
3	TUBE WRENCH	1 1/4	1	TORQUE WRENCH *	DRIVE
					0-300 INLB, 1/2"
5	TUBE WRENCH	1 3/8	1	TORQUE WRENCH *	DRIVE
5	TUBE WRENCH	1 5/16	1	TORQUE WRENCH *	0-25 INLB
					0-600 INLB, 1/2"
2	TUBE WRENCH	1 1/2	1	TORQUE WRENCH *	DRIVE
					0-150 FTLB, 1/2"
2	TUBE WRENCH	1	1	TORQUE WRENCH *	DRIVE
4	TUBE WRENCH	1 5/8	1	TORQUE WRENCH *	0-25 INLB
2	TUBE WRENCH	9/16 - 1/2	7	TORQUE WRENCH *	HANDLES
	TUBE WRENCH	3/4	1	TORQUE WRENCH *	0-500 FTLB, 3/4" DRIVE
1	TUBE WRENCH	13/16	4	ANGLE ARC TORCH	DRIVE
9	STUD DRIVER REMOVER	1/4	3	GROUNDING CABLES	
4	STUD DRIVER REMOVER	5/16	2	SYN FLEX HOSES	
2	STUD DRIVER REMOVER	3/8	2	BLACK GOLD TIG	
3	STUD DRIVER REMOVER	7/16	6	TIG HANDLES	
4	STUD DRIVER REMOVER	1/2	3	TIG FOOT CONTROLS	
6	STUD DRIVER REMOVER	5/8	3	BLACK GOLD TIG STARTER KIT	
1	STUD DRIVER REMOVER	1	3	AIR ARK ELECTRODES	BOX

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
5	STUD DRIVER REMOVER	7/8	6	BURNING GAGLES	
1	STUD DRIVER REMOVER	1 1/8	12	WELDING HELMET	
2	STUD DRIVER REMOVER	1 3/8	6	WELDING SLEEVES	
1	STUD DRIVER REMOVER	1 1/2	2	WELDING JACKET	
3	STUD DRIVER REMOVER	1 1/4	2	LIVE AIR	
2	STUD DRIVER REMOVER	1 1/2 - 9	2	EXOTHERMIC CUTTING SYSTEM	
2	STUD DRIVER REMOVER	1 3/8 - 8	1	DEPTH MIROMETER *	0 - 10 INCH
2	STUD DRIVER REMOVER	1 1/4 - 7	1	DEPTH MIROMETER *	0 - 10 INCH
2	STUD DRIVER REMOVER	1 1/8 - 8		DEPTH MIROMETER *	0 - 10 INCH
1	STUD DRIVER REMOVER	1-14	1	DEPTH MIROMETER *	0 - 12 INCH
4	STUD DRIVER REMOVER	1-8		DEPTH MIROMETER *	0 - 9 INCH
2	STUD DRIVER REMOVER	1 1/8 - 7	1	DEPTH MIROMETER *	0 - 10 INCH
1	STUD DRIVER REMOVER	1 1/2 - 8	1	DEPTH MIROMETER *	0 - 9 INCH
3	STUD DRIVER REMOVER	7/8 - 14	1	DEPTH MIROMETER *	0 - 4 INCH
2	STUD DRIVER REMOVER	7/8 - 9	1	DEPTH MIROMETER *	.001 - 1.000
3	STUD DRIVER REMOVER	3/4 - 10	1	DEPTH MIROMETER *	.001 - 1.000
1	STUD DRIVER REMOVER	3/4 - 16	1	DEPTH MIROMETER *	.001 - 1.000
1	STUD DRIVER REMOVER	5/8 - 11		DEPTH MIROMETER *	0 - 10
1	STUD DRIVER REMOVER	5/8 - 18	1	VERNIER CALIPER *	0 - 24
2	STUD DRIVER REMOVER	1/2 - 13	1	VERNIER CALIPER *	0 - 24
1	STUD DRIVER REMOVER	1/4 - 20	1	VERNIER CALIPER *	0 - 24
2	STUD DRIVER REMOVER	S	1	VERNIER CALIPER *	0 - 24
8	STUD DRIVER REMOVER	M	1	VERNIER CALIPER *	0 - 24
2	STUD DRIVER REMOVER	L	1	VERNIER CALIPER *	0 - 24
4	STUD DRIVER REMOVER	SETS	1	VERNIER CALIPER *	0 - 24
8	CAULKING GUNS		1	VERNIER CALIPER *	0 - 24
10	GREASE GUNS		1	VERNIER CALIPER *	0 - 24
18	FLAT BASTARD	14"	1	DEPTH MIROMETER *	.0005125
17	FLAT BASTARD	12"	1	DEPTH MIROMETER *	1.0000001
16	2ND CUT	14"	1	DEPTH MIROMETER *	1.0000001
6	SMOOTH	12"	1	DEPTH MIROMETER *	1.0000001
12	BASTARD	10"	1	DEPTH MIROMETER *	0 - 9

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
12	2ND CUT	12"	1	DEPTH MIROMETER *	0 - 3
5	BASTARD	8"	1	DEPTH MIROMETER *	1.000001
6	1/2 ROUND BASTARD	14"		DEPTH MIROMETER *	0 - 8
7	1/2 ROUND BASTARD	8"	4	DIVIDER	20 INCH ROD
11	1/2 ROUND SMOOTH	8"	3	GAGE BLOCK	SET
8	1/2 ROUND 2ND CUT	10"	1	INSIDE MICROMETER *	2.5 - 12.5
5	1/2 ROUND BASTARD	10"	1	INSIDE MICROMETER *	2.5 - 12
4	1/2 ROUND BASTARD	12"	1	INSIDE MICROMETER *	2 - 12
8	1/2 ROUND SMOOTH	12"	1	OUTSIDE MICROMETER *	1 - 2
1	1/2 ROUND 2ND CUT	14"	1	OUTSIDE MICROMETER *	2 - 3
4	1/2 ROUND RASP	12"	1	OUTSIDE MICROMETER *	2 - 3
8	ROUND 2ND CUT	6"	1	OUTSIDE MICROMETER *	3 - 4
5	ROUND 2ND CUT	10"	1	OUTSIDE MICROMETER *	5 - 6
27	ROUND BASTARD	14"	1	OUTSIDE MICROMETER *	5 - 6
11	ROUND BASTARD	14"	1	OUTSIDE MICROMETER *	7 - 8
19	ROUND SMOOTH	14"	1	OUTSIDE MICROMETER *	7 - 8
16	TRIANGLE 2ND CUT	10"	1	OUTSIDE MICROMETER *	6 - 7
7	TRIANGLE 2ND CUT	8"	1	OUTSIDE MICROMETER *	7 - 8
3	TRIANGLE SMOOTH	6"	1	OUTSIDE MICROMETER *	7 - 8
7	SQUARE ND CUT	14"	1	OUTSIDE MICROMETER *	1 - 5
34	SQUARE BASTARD	14"	1	OUTSIDE MICROMETER *	16 - 20
13	HANDLESS		1	OUTSIDE MICROMETER *	9 - 12
9	BRUSH		1	HEIGHT GAGE *	12 INCH
6	SCRAPER BEARING		2	VER CAL *	12 INCH
1	SCRAPER CARBIDE		1	OUTSIDE MICROMETER *	175MM - 200MM
3	SCRAPER NAVY TYPE		1	OUTSIDE MICROMETER *	4 - 5
1	SET BEARING		1	OUTSIDE MICROMETER *	4 - 5
7	PACKING EXTRACTOR	SIZE 1	1	OUTSIDE MICROMETER *	5 - 6
8	PACKING EXTRACTOR	SIZE 2	1	OUTSIDE MICROMETER *	5 - 6
3	PACKING EXTRACTOR	SIZE 3	1	OUTSIDE MICROMETER *	5 - 6
32	PACKING EXTRACTOR	SIZE 4	1	OUTSIDE MICROMETER *	5 - 6
15	PACKING EXTRACTOR	SIZE 5	1	OUTSIDE MICROMETER *	4 - 5

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
47	PACKING EXTRACTOR	SIZE 6	1	OUTSIDE MICROMETER *	4 - 5
18	PACKING EXTRACTOR	SIZE 7	1	OUTSIDE MICROMETER *	4 - 5
5	PACKING EXTRACTOR	SIZE 8	1	OUTSIDE MICROMETER *	4 - 5
6	PACKING EXTRACTOR	SIZE 9	1	INTRIMIK MICROMETER, SET *	1.600 - 4.00
5	SPANNER WRENCH	3/4 - 2	1	OUTSIDE MICROMETER, SET *	2 - 12
6	SPANNER WRENCH	1 1/4 - 3	1	OUTSIDE MICROMETER *	2 - 3
32	SPANNER WRENCH	4 3/4 - 2	1	OUTSIDE MICROMETER *	2 - 3
24	SPANNER WRENCH	LARGE	1	OUTSIDE MICROMETER *	4 - 5
13	SPANNER WRENCH	M	1	OUTSIDE MICROMETER *	5 - 6
11	SPANNER WRENCH	SMALL	1	OUTSIDE MICROMETER *	6 - 7
14	START PLIER		1	OUTSIDE MICROMETER *	7 - 8
8	90 DEGREE PLIER		1	OUTSIDE MICROMETER *	8 - 9
27	HAND REAMERS	11/16	1	OUTSIDE MICROMETER *	9 - 10
12	HAND REAMERS	23/32	1	OUTSIDE MICROMETER *	10 - 11
19	HAND REAMERS	5/8	1	OUTSIDE MICROMETER *	11 - 12
					0-150MM, 0-25MM, 25-50MM, 50-75MM, 75-100MM, 100-
9	HAND REAMERS	19/32	1	OUTSIDE MICROMETER, SET *	125MM, 125-150MM
21	HAND REAMERS	21/32	1	OUTSIDE MICROMETER *	2 - 3
14	HAND REAMERS	# 10	1	OUTSIDE MICROMETER *	6 - 7
10	HAND REAMERS	1/2	1	OUTSIDE MICROMETER *	10 - 11
9	HAND REAMERS	17/32	1	OUTSIDE MICROMETER *	10 - 11
19	HAND REAMERS	9/16	1	OUTSIDE MICROMETER *	8 - 9
10	HAND REAMERS	13/32	1	OUTSIDE MICROMETER *	8 - 9
6	HAND REAMERS	7/16	1	OUTSIDE MICROMETER *	11 - 12
6	HAND REAMERS	15/32	1	HOLE MICROMETER *	.80 - 1.20
12	HAND REAMERS	5/16	1	INTRIMIK MICROMETER, SET *	0.275 - 0.500
10	HAND REAMERS	19/64	1	INTRIMIK MICROMETER, SET *	0.500 - 0.700
2	HAND REAMERS	11/32	1	INTRIMIK MICROMETER, SET *	1.200 - 1.600
5	HAND REAMERS	3/8	1	INTRIMIK MICROMETER, SET *	1.200 - 1.400
12	HAND REAMERS	1/8	1	OUTSIDE MICROMETER *	2 - 3

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
9	HAND REAMERS	7/32	1	OUTSIDE MICROMETER *	2 - 3
5	HAND REAMERS	1/4	1	OUTSIDE MICROMETER *	2 - 3
3	HAND REAMERS	9/32	1	OUTSIDE MICROMETER *	3 - 4
4	HAND REAMERS	3/16	1	OUTSIDE MICROMETER *	4 - 5
3	HAND REAMERS	5/32	1	OUTSIDE MICROMETER *	5 - 6
3	HAND REAMERS	31/64	1	OUTSIDE MICROMETER *	1 - 2
6	HAND REAMERS	1 1/8	1	OUTSIDE MICROMETER *	3 - 4
6	HAND REAMERS	1 1/16	1	OUTSIDE MICROMETER *	4 - 5
13	HAND REAMERS	1	1	OUTSIDE MICROMETER *	5 - 6
4	HAND REAMERS	55/64	1	OUTSIDE MICROMETER *	5 - 6
9	HAND REAMERS	31/32	1	OUTSIDE MICROMETER *	5 - 6
6	HAND REAMERS	13/16	1	OUTSIDE MICROMETER *	5 - 6
12	HAND REAMERS	7/8	1	OUTSIDE MICROMETER *	6 - 7
12	HAND REAMERS	29/32	1	OUTSIDE MICROMETER *	5 - 6
12	HAND REAMERS	27/32	1	OUTSIDE MICROMETER *	6 - 7
16	HAND REAMERS	13/16	1	OUTSIDE MICROMETER *	6 - 7
14	HAND REAMERS	25/32	1	OUTSIDE MICROMETER *	6 - 7
26	HAND REAMERS	3/4	1	OUTSIDE MICROMETER *	6 - 7
5	HAND REAMERS	1 7/16	1	OUTSIDE MICROMETER *	5 - 6
9	HAND REAMERS	1 1/2	1	OUTSIDE MICROMETER *	6 - 7
15	HAND REAMERS	1 1/4	1	OUTSIDE MICROMETER *	6 - 7
1	HAND REAMERS	1 5/32	1	OUTSIDE MICROMETER *	7 - 8
1	HAND REAMERS	1 1/32	1	OUTSIDE MICROMETER *	10 - 11
4	HAND REAMERS	1 11/16	1	OUTSIDE MICROMETER *	11 - 12
4	HAND REAMERS	1 5/16	1	OUTSIDE MICROMETER *	11 - 12
14	HAND REAMERS	# 9	1	INTRIMIK MICROMETER *	2.000 - 2.400
9	HAND REAMERS	# 8	1	GROOVE DEPTH GAGE *	
37	PIN REAMER	0 - 0	1	PRECISION LEVEL *	15 INCH
9	PIN REAMER	3	1	PRECISION LEVEL *	15 INCH
29	PIN REAMER	2	1	PRECISION LEVEL *	18 INCH
34	PIN REAMER	1	1	DIAL BORE GAGE #6 *	
29	PIN REAMER	0	1	OUTSIDE MICROMETER *	0 - 1

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
13	PIN REAMER	3 - 0	1	INTRIMIK MICROMETER, SET *	1.600 - 4.000
18	PIN REAMER	4 - 0	1	VERNIER CALIPER *	1 - 37
16	PIN REAMER	5 - 0	1	VERNIER CALIPER *	1 - 73
20	PIN REAMER	4	1	OUTSIDE MICROMETER *	18 - 24
14	PIN REAMER	6	1	OUTSIDE MICROMETER *	12 - 18
14	PIN REAMER	7	1	OUTSIDE MICROMETER *	54 - 60
31	PIN REAMER	000	1	OUTSIDE MICROMETER *	48 - 53
4	PIN REAMER	1 3/8	1	OUTSIDE MICROMETER *	42 - 47
6	PIN REAMER	2	1	OUTSIDE MICROMETER *	31 - 36
6	BRIDGE REAMER	9/32	1	GROOVE GAGE DIAL IND. *	
				DIGITAL THERMOMETER	
3	BRIDGE REAMER	5/16	1	PYROMETER *	
				DIGITAL THERMOMETER	
6	BRIDGE REAMER	3/8	1	PYROMETER *	
				DIGITAL THERMOMETER	
2	BRIDGE REAMER	7/16	1	PYROMETER *	
13	BRIDGE REAMER	13/16	1	STROBOTAC *	
7	BRIDGE REAMER	11/32	1	STROBOTAC *	
10	BRIDGE REAMER	15/32	1	PHOTO – TACH *	
10	BRIDGE REAMER	17/32	1	DIGISTROBE *	
3	BRIDGE REAMER	1/2	1	OUTSIDE MICROMETER *	3 - 4
4	BRIDGE REAMER	9/16		OUTSIDE MICROMETER *	2 - 3
9	BRIDGE REAMER	5/8	1	STD CAL FOR OUTSIDE MIC *	
2	BRIDGE REAMER	17/32	1	INSIDE MICROMETER, SET *	0 - 5 INCHES
6	BRIDGE REAMER	11/16	1	DIAL CALIPER HEIGHT GAGE *	
11	BRIDGE REAMER	21/32	1	DIAL BORE GAGE (INCOMP) *	
				PORTABLE MICROMETER STD *	
6	BRIDGE REAMER	3/4	1	SET *	
7	BRIDGE REAMER	23/32	1	HARNESS TEST SET (WILSON) *	
5	BRIDGE REAMER	27/32	1	DIAL BORE GAGE *	SMALL
				VERTICAL AIR COMPRESSOR	
8	BRIDGE REAMER	25/32	1	(CRAFTSMAN)	25 GAL
6	BRIDGE REAMER	7/8	4	RADIOS	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	BRIDGE REAMER	1 11/16	26	NEW REPLACEMENT BATTERIES	
1	BRIDGE REAMER	1 3/8	15	VIBROLAROR	13
5	BRIDGE REAMER	1 5/16	17	VIBROLAROR	19
5	BRIDGE REAMER	29/32	19	VIBROLAROR	25 M
5	BRIDGE REAMER	31/32	2	VIBROLAROR	57 M
4	BRIDGE REAMER	1 3/32	11	RULE	36 INCH
7	BRIDGE REAMER	1 5/32	1	HAMMER DRILL AEG BH-25	
5	BRIDGE REAMER	1 1/32	1	HILTI TK-1	
9	BRIDGE REAMER	1 1/16	1	PRECISE/ROCKWELL SUPER 40	
14	BRIDGE REAMER	1 3/16	1	SKIL SAW	7 1/4
3	BRIDGE REAMER	1 9/16	1	PILOT DRILL	1 INCH
3	BRIDGE REAMER	1 5/16	1	PILOT HOLDER TAPER SHANK	3 MT
2	BRIDGE REAMER	1 7/16	4	HAMMERS, SOFT FACE	
5	BRIDGE REAMER	1 1/2	1	CLIMAX KEY MILL	
2	BRIDGE REAMER	1 1/4	1	TABLE BAND SAW (MILWAUKEE)	
4	BRIDGE REAMER	1 9/32	3	LEAD PLATES F/GASKET CUTTING	
5	EXPANSION REAMER	1 3/16 - 1 11/32	1	HILTI	1 1/2" DRILL
2	EXPANSION REAMER	1 1/16 - 1 3/16	2	HILTI	1" DRILL
1	EXPANSION REAMER	1 11/32 - 1 1/32	1	CHARGER (B&D)	
2	EXPANSION REAMER	1 11/32 - 1 17/32	1	HILTI DRILL	TDR 300
				SCREW DRIVER, CORDLESS	
1	EXPANSION REAMER	13/16 - 7/8	2	(SKIL)	
1	EXPANSION REAMER	5/8 - 11/16	5	BATTERY, 9000 (MAKITA)	
				CHARGER, BATTERY, FAST CHG	
3	EXPANSION REAMER	23/32 - 25/32	1	(MAKITA)	
2	EXPANSION REAMER	27/32 - 15/16	1	CHARGER, BC-96A (RYOBI)	
1	EXPANSION REAMER	11/32 - 19/32	1	DRILL, CORDLESS (RYOBI)	3/8 INCH
1	EXPANSION REAMER	13/32	3	STEP BLOCKS	
1	EXPANSION REAMER	13/32 - 7/16	18	"C" CLAMPS	8 - 10 - 12
1	EXPANSION REAMER	1/2 - 9/16	14	TAP	3/4 - 10 NC LONG
1	EXPANSION REAMER	17/32	34	TAP	1 3/8 - 12 NF
1	EXPANSION REAMER	15/16 - 1 1/16	30	TAP	1 1/4 - 12 NF

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	EXPANSION REAMER	21/32	11	TAP	1 - 14 NF
1	EXPANSION REAMER	47/64	15	TAP	1 - 8 NC
2	EXPANSION REAMER	13/16	3	TAP	7/8 - 14 NF
1	EXPANSION REAMER	21/32 - 23/32	33	TAP	7/8 - 9 NC
1	EXPANSION REAMER	19/32 - 24/32	1	TAP	1 3/4 - 5
2	EXPANSION REAMER	7/16	1	TAP	2 - 8 NS
1	EXPANSION REAMER	1 17/32 - 1 25/32	1	TAP	2 - 12 NS
1	EXPANSION REAMER	1 11/16 - 1 15/16	4	TAP	1 7/8 - 5 NS
1	EXPANSION REAMER	1 5/8	4	TAP	1 1/2 - 11 1/2 NPT
1	EXPANSION REAMER	2 1/16	1	TAP	1 1/4 - 11 1/2 NPT
1	EXPANSION REAMER	2	5	TAP	2 - 11 1/2 NPT
2	EXPANSION REAMER	2 15/32	39	DRILL	1 - #3
1	EXPANSION REAMER	1 25/32 - 2 3/32	4	DRILL	7/8
1	EXPANSION REAMER	2 3/32 - 2 15/32	3	STEEL HAWG	4 1/2
1	EXPANSION REAMER	2 - 3 1/2	3	STEEL HAWG	4
1	EXPANSION REAMER	2 31/31 - 3 1/2	2	STEEL HAWG	2 1/2
2	EXPANSION REAMER	3 1/2 - 4 1/16	2	STEEL HAWG	2
5	SHELL REAMER	2 3/4	5	STEEL HAWG	1 3/4
3	SHELL REAMER	2 9/16	2	STEEL HAWG	2 1/16
2	SHELL REAMER	2 1/2	6	STEEL HAWG	2 1/8
3	SHELL REAMER	2 7/16	16	MASONRY DRILL	3/4
4	SHELL REAMER	2 1/8	4	MASONRY DRILL	7/8
4	SHELL REAMER	2	20	MASONRY DRILL	11/16
1	SHELL REAMER	1 31/32	25	MASONRY DRILL	5/8
2	SHELL REAMER	1 15/32	6	MASONRY DRILL	1
1	SHELL REAMER	1 13/16	16	MASONRY DRILL	9/16
1	SHELL REAMER	1 27/32	9	MASONRY DRILL	1/2
1	SHELL REAMER	1 23/32	7	RECIPROCATING HACKSAW, AIR	
3	SHELL REAMER	1 11/16	5	PNEUMATIC GRINDER, AIR	
1	SHELL REAMER	1 5/16	6	ANGLE GRINDER, AIR	
1	SHELL REAMER	1 1/4	2	RECIPROCATING HACKSAW, AIR	ATLAS CAPCO
1	SHELL REAMER	1 41/64	3	NEEDLE GUN, AIR	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
3	SHELL REAMER	1 5/8	1	CHISEL GUN, AIR	
1	SHELL REAMER	1 21/32	7	CHIPPING GUN, AIR	
1	SHELL REAMER	1 9/16	1	90 DEGREE RATCHET, AIR	
1	SHELL REAMER	1 19/32	1	IMPACT, AIR	3/4" DRIVE
1	SHELL REAMER	1 13/32	6	IMPACT, AIR	1" DRIVE
3	SHELL REAMER	1 1/2	1	IMPACT, AIR	1 1/2" DRIVE
1	SHELL REAMER	1 7/16	12	GRINDER, AIR	
2	SHELL REAMER	1 3/8	4	GRINDER CUTTING WHEEL	
1	SHELL REAMER	2 5/16	2	GRINDER, ELECTRIC	
2	SHELL REAMER	2 3/8	4	ROLLING MATOR	
2	SHELL REAMER	2 3/4	6	GERMAN SAW	
1	SHELL REAMER	2 5/16	8	DRUM WRENCH	
13	TAPPER SLEEVES		5	GRINDER DRESSER AND WHEELS	
2	IMP. PREC. PILOT REAMER	SET	6	RIVIT CUTTER	
1	OPEN END WRENCH	7/16	2	THICHNESS GAGE	0.015
1	OPEN END WRENCH	19/32	6	THICHNESS GAGE	0.003
4	OPEN END WRENCH	5/8	5	THICHNESS GAGE	0.002
7	OPEN END WRENCH	13/16	2	THICHNESS GAGE	0.001
1	OPEN END WRENCH	9/16	1	BATTERY CHARGER	
7	OPEN END WRENCH	11/16	1	DYNAFILE VERSATILITY KIY	
21	OPEN END WRENCH	3/4	1	SANDER (BELTON)	MODEL B-20B
12	OPEN END WRENCH	7/8	1	MINI DIE GRINDER	
23	OPEN END WRENCH	13/16	2	SCRAPER, AIR POWERED	
11	OPEN END WRENCH	15/16	1	CHISEL, AIR	
22	OPEN END WRENCH	1	43	FIRE BOTTLE GAGE	
8	OPEN END WRENCH	1 1/16	17	WIRE BRUSH	
21	OPEN END WRENCH	1 1/8	60	SANDING DISC	
17	OPEN END WRENCH	1 5/16	47	FLAPER WHEEL	
1	OPEN END WRENCH	2 1/16	60	CUTTING WHEEL	
19	OPEN END WRENCH	1 1/4	59	GRINDING WHEEL	
8	OPEN END WRENCH	1 3/8	40	CUT OFF WHEEL	16 INCH
11	OPEN END WRENCH	1 7/16	80	CUT OFF WHEEL	10 INCH

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
22	OPEN END WRENCH	1 1/2	65	BAND SAW BLADE	
1	OPEN END WRENCH	1 9/16	70	AIR FITTINGS	
12	OPEN END WRENCH	1 5/8	100	AIR FITTING PARTS	
12	OPEN END WRENCH	1 11/16	50	HYDRAULIC FITTING	
3	OPEN END WRENCH	1 3/4	17	FLASH BOX OPENER	
5	OPEN END WRENCH	1 13/16	3	SELECT-A-TORQ	ASST HEADS & FITTINGS
				POWER-DYNE HYD TORQUE	
7	OPEN END WRENCH	1 7/8	1	WRENCH	
18	OPEN END WRENCH	2	1	TOOL ASST POWER-DYNE, KIT	
2	OPEN END WRENCH	2 3/8	1	VALVE RESEATING MACHINE	
2	OPEN END WRENCH	2 3/16	1	VERSA TAPPER #	
1	OPEN END WRENCH	2 3/4	1	PICK-A-PACK SNAKES	
4	OPEN END WRENCH	2 13/16	6	SHOP VAC & ASST FITTINGS	
12	OPEN END WRENCH	2 1/4	37	HYDRAULIC JACK	ASSORTED
1	OPEN END WRENCH	2 1/2	2	HYDRAULIC CABLE CUTTER	
1	OPEN END WRENCH	7/16 - 3/8	46	HYDRAULIC JACK HEADS	ASSORTED
1	OPEN END WRENCH	1/2 - 9/16	3	MITER BOX	
1	OPEN END WRENCH	5/8 - 9/16	1	CHOP SAW	
2	OPEN END WRENCH	9/16 - 11/16	1	TORQUE MULTIPLIER, SET (SWEENEY) *	
1	OPEN END WRENCH	5/8 - 3/4	1	CLIMAX FLANGE-FACER	
1	OPEN END WRENCH	25/32 - 5/8	2	CARPENTERS SQUARE	
1	OPEN END WRENCH	3/4 - 5/8	4	COMBINATION SQUARE	
5	OPEN END WRENCH	3/4 - 13/16	150	HONING STONE	
1	OPEN END WRENCH	3/4 - 1	30	HONING STONE	
6	OPEN END WRENCH	3/4 - 7/8	75	HONING STONE	
1	OPEN END WRENCH	3/4 - 11/16	7	HONING ARBOR	
1	OPEN END WRENCH	7/8 - 31/32	11	EXTENSION ASSY	
2	OPEN END WRENCH	7/8 - 15/16	13	CHAIN PIPE WRENCH	
1	OPEN END WRENCH	13/16 - 1	22	PRY BAR	SMALL
1	OPEN END WRENCH	7/8 - 1 1/16	9	PRY BAR	LARGE

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
1	OPEN END WRENCH	1 - 1 1/4	42	GEAR PULLER ASSY	
9	OPEN END WRENCH	1 - 1 1/8	30	OLMAN ASSY	
2	OPEN END WRENCH	1 1/16 - 1 1/4	1	DEXTER MACHINE	
				VALVE GRINDING & LAPPING	
1	OPEN END WRENCH	1 3/16 - 1 5/16	1	MACHINE	
1	OPEN END WRENCH	1 1/8 - 1 5/16	2	MAGNETIC BACKED MIRRORS	
1	OPEN END WRENCH	1 1/8 - 1 1/4	4	TARGET MIRROR	
2	OPEN END WRENCH	1 - 1 3/8	4	PROFILOMETER TRACERS	
12	OPEN END WRENCH	1 5/16 - 1 1/2	2	SKID MOUNTS	
1	OPEN END WRENCH	1 1/4 - 1 5/8	1	K & E SITE	
4	OPEN END WRENCH	1 5/8 - 1 7/16	1	TARGET LENS	
1	OPEN END WRENCH	2 3/8	1	VISUTAC	
1	OPEN END WRENCH	1 13/16 - 2	33	SCOPE ADJUSTMENT BAR	
1	OPEN END WRENCH	1 7/16 - 1 5/8	3	SCOPE (K&E)	
1	OPEN END WRENCH	1 1/4 - 1 13/16	1	SCOPE (SEARS & ROEBUCK)	
1	OPEN END WRENCH	15/16 - 1	2	SCOPE (BERGER INSTRUMENTS)	
2	OPEN END WRENCH	1 15/16	1	SCOPE (WARREN KNIGHT)	
				SCOPE & ADJUSTING EQUIP	
1	SPICK END	1 7/8	1	(DAUPHIN)	
				TRI TOOL FLANGE & PIPE FACING	
2	SPICK END	1 1/4	3	CLAMSHELL	
1	SPICK END	7/8	1	TRITOOL END PREP OILER	
1	SPICK END	1 15/16	4	TRITOOL AIR DRIVE MOTOR	
				TRITOOL FLANGE & PIPE FACING	
2	SPICK END	1 11/16	5	CUTTERS	
				ASST TRITOOL RELATED MISC	
1	SPICK END	1 1/8		EQUIP	
2	BOX END WRENCH	1 7/16 - 1 5/8	6	BARREL PUMPS	
				BUG-O-SYSTEM (PRECISION	
3	BOX END WRENCH	1 1/2 - 1 7/16	1	CIRCLE CUTTER)	
8	BOX END WRENCH	1 5/8 - 1 7/16	1	STUD WELDER	
5	BOX END WRENCH	1 1/4 - 1 15/16	1	HIGH PRESSURE HYD PUMP	
3	BOX END WRENCH	1 1/4 - 1 3/8	2	WELDING WIRE HEATERS	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
4	BOX END WRENCH	15/16 - 1	37	PRESSURE GAGES	ASSORTED
2	BOX END WRENCH	1 1/16 - 1 1/4	22	FUNNELS	ASSORTED
1	BOX END WRENCH	25/32 - 11/16	1	SKF INDUCTION HEATER	
1	BOX END WRENCH	1 - 1 1/2	2	SLEDGE HAMMER HANDLES	BOXES
2	BOX END WRENCH	1 1/16 - 1 1/8	6	PAINT MIXERS	
2	BOX END WRENCH	1 1/8 - 1 1/4		ASSORTED BANDING MATERIAL	
1	BOX END WRENCH	7/8 - 13/16	7	BAND SAW BLADES (LENOX)	
1	BOX END WRENCH	13/16		HELI COILS	ASSORTED
1	BOX END WRENCH	15/16		"O" RING MATERIAL	ASSORTED ROLLS
4	BOX END WRENCH	1 1/16	89	BOX END WRENCHES, SPECIAL	ASSORTED
2	BOX END WRENCH	7/8	150	OPEN END WRENCHES	ASSORTED
2	BOX END WRENCH	1 15/16 - 1 1/4	13	DRILL BITS, LONG	
1	BOX END WRENCH	1 13/16	5	HYDRO PUMPS	
2	BOX END WRENCH	1	3	BLOWERS	
1	BOX END WRENCH	1 1/8	2	JACK HAMMER & ASST FITTINGS	
1	BOX END WRENCH	1 5/16	17	TAPS & REAMERS	ASSORTED
4	BOX END WRENCH	1 /4	60	GAGES *	ASSORTED
1	BOX END WRENCH	1 7/16	19	ROLLING MOTORS	
2	SLUG WRENCH	1 1/16	18	DRILL MOTORS	
4	SLUG WRENCH	1 1/8	3	GRINDERS	
8	SLUG WRENCH	1 1/4	1	CHIPPING GUN, AIR	
				OPEN & BOX END WRENCH SET	
13	SLUG WRENCH	1 5/16	1	WITH HANDLES	
6	SLUG WRENCH	1 7/16	2	HAND TORQUE WRENCH SET *	
16	SLUG WRENCH	1 1/2	5	DESK ??	
10	SLUG WRENCH	1 5/8	1	GREASE GUN	
				METAL TAB MACHINE (ADDRES-O-	
12	SLUG WRENCH	1 11/16	1	GRAPH)	
10	SLUG WRENCH	1 7/8	1	JACK HAMMER	
9	SLUG WRENCH	1 15/16	1	BANDING REEL WITH BANDING	
8	SLUG WRENCH	2	5	REELS OF BANDING	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
				HAND HOLE SEAT REFACING	
6	SLUG WRENCH	2 1/16	1	MATERIAL	BOX
5	SLUG WRENCH	2 1/8	2	AIR HOSES	
4	SLUG WRENCH	2 3/16	2	LEADERS	
4	SLUG WRENCH	2 1/2	3	LIVE AIR SYSTEM HOSES	
12	SLUG WRENCH	2 1/4	1	LIVE AIR MANIFOLD	
3	SLUG WRENCH	2 3/8	1	AIR ARC HANDLE	
1	SLUG WRENCH	2 3/4	1	SELECT-A-TORQ CONTROL BOX	
2	SLUG WRENCH	2 5/8	1	MORGRIP BOLTS EQUIPMENT	
3	SLUG WRENCH	2 9/16	2	CORE DRILLS	
2	SLUG WRENCH	2 7/8	7	MAG BASE DRILLS	
1	SLUG WRENCH	2 15/16	1	LAP MASTER 15	
3	SLUG WRENCH	3 1/2	6	FLUID TRANSFER PUMP	
2	SLUG WRENCH	3 1/8	10	OLD MAN FIXTURES	
				THREADOLITE PORTABLE	
1	SLUG WRENCH	3	1	FOUNDATION FIXTURE (K&E)	
2	SLUG WRENCH	3 1/4	11	LAPPING BLOCKS	
1	SLUG WRENCH	75MM	1	MIXING PAN	
				BOX PARKER FITTING	
1	SLUG WRENCH	2 9/16	1	COMPRESION TOOL, SET	
				SOCKET EXTENSIONS (TAPER	
3	SLUG WRENCH	3 3/8	100	DRILLS)	
1	SLUG WRENCH	4 1/2	42	FLY CUTTER ARBORS	
2	SLUG WRENCH	4 1/8	1	MULTI TOOL SET, BOX	
5	SLUG WRENCH	3 3/4		GEAR PULLERS (3 DRAWERS)	ASSORTED
				HAMMER DRILL CHISELS (1	
1	SLUG WRENCH	3 7/8		DRAWER)	ASSORTED
1	SLUG WRENCH	4 1/3	100	HEAVY DUTY "C" CLAMPS	ASSORTED
2	SLUG WRENCH	1 13/16	135	ACETYLENE TIPS (VICTOR)	VARIOUS SIZES
				WELDING & BURNING PARTS (1	
17	TAPER DRILLS	7/32		DRAWER)	ASSORTED
2	TAPER DRILLS	15/64	1	CABLE CUTTER	
2	TAPER DRILLS	17/64	9	DROP LIGHTS	

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
10	TAPER DRILLS	9/32	2	BOLT CUTTERS	1-LG, 1-SM
8	TAPER DRILLS	19/64	10	FLANGE SPREADER	
1	TAPER DRILLS	5/16	1	LEVEL	4 INCH
13	TAPER DRILLS	21/64	1	LEVEL	2 INCH
8	TAPER DRILLS	11/32			
8	TAPER DRILLS	23/64			
13	TAPER DRILLS	3/8			
13	TAPER DRILLS	13/64			
6	TAPER DRILLS	25/64			
5	TAPER DRILLS	27/64			
5	TAPER DRILLS	29/64			
32	TAPER DRILLS	15/32			
65	TAPER DRILLS	7/16			
17	TAPER DRILLS	31/64			
49	TAPER DRILLS	1/2			
6	TAPER DRILLS	33/64			
22	TAPER DRILLS	17/32			
9	TAPER DRILLS	35/64			
8	TAPER DRILLS	9/16			
3	TAPER DRILLS	37/64			
22	TAPER DRILLS	19/32			
20	TAPER DRILLS	39/64			
20	TAPER DRILLS	5/8			
24	TAPER DRILLS	41/64			
27	TAPER DRILLS	21/32			
20	TAPER DRILLS	43/64			
27	TAPER DRILLS	11/16			
24	TAPER DRILLS	45/64			
12	TAPER DRILLS	23/32			
19	TAPER DRILLS	47/64			
18	TAPER DRILLS	3/4			
22	TAPER DRILLS	25/32			

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
11	TAPER DRILLS	49/64			
6	TAPER DRILLS	51/64			
22	TAPER DRILLS	13/16			
18	TAPER DRILLS	53/64			
26	TAPER DRILLS	27/32			
11	TAPER DRILLS	55/64			
14	TAPER DRILLS	7/8			
9	TAPER DRILLS	57/64			
29	TAPER DRILLS	29/32			
5	TAPER DRILLS	59/64			
19	TAPER DRILLS	15/16			
10	TAPER DRILLS	61/64			
27	TAPER DRILLS	31/32			
13	TAPER DRILLS	63/64			
29	TAPER DRILLS	1			
9	TAPER DRILLS	1 1/64			
11	TAPER DRILLS	1 1/32			
10	TAPER DRILLS	1 3/64			
11	TAPER DRILLS	1 1/16			
8	TAPER DRILLS	1 5/64			
17	TAPER DRILLS	1 3/32			
8	TAPER DRILLS	1 7/64			
2	TAPER DRILLS	1 1/8			
2	TAPER DRILLS	1 9/64			
9	TAPER DRILLS	15/32			
6	TAPER DRILLS	1 11/64			
11	TAPER DRILLS	1 3/16			
2	TAPER DRILLS	1 17/64			
17	TAPER DRILLS	1 1/4			
9	TAPER DRILLS	1 15/64			
15	TAPER DRILLS	1 7/32			
3	TAPER DRILLS	1 13/64			

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
12	TAPER DRILLS	1 11/32			
3	TAPER DRILLS	1 21/64			
8	TAPER DRILLS	1 5/16			
6	TAPER DRILLS	1 19/64			
18	TAPER DRILLS	1 9/32			
3	TAPER DRILLS	1 27/64			
5	TAPER DRILLS	1 13/32			
6	TAPER DRILLS	1 25/64			
13	TAPER DRILLS	1 3/8			
9	TAPER DRILLS	1 23/64			
11	TAPER DRILLS	1 1/2			
5	TAPER DRILLS	1 31/64			
7	TAPER DRILLS	1 15/32			
1	TAPER DRILLS	1 29/64			
8	TAPER DRILLS	1 7/16			
6	TAPER DRILLS	1 19/32			
3	TAPER DRILLS	1 37/64			
1	DRILL SLEEVES	1 - 1			
4	DRILL SLEEVES	1 - 3			
11	DRILL SLEEVES	2 - 3			
13	DRILL SLEEVES	1 - 4			
14	DRILL SLEEVES	2 - 4			
21	DRILL SLEEVES	3 - 4			
4	DRILL SLEEVES	2 - 5			
5	DRILL SLEEVES	1 - 5			
2	DRILL SLEEVES	4 - 5			
3	DRILL SLEEVES	3 - 5			
3	DRILL SLEEVES	mao - 2			
1	DRILL SLEEVES	9 - 10			
2	DRILL SLEEVES	4 - 1 1/8			
1	DRILL SLEEVES	5 - 1			
7	DRILL SLEEVES	#4 KEY			

^{*} In description denotes tools requiring calibration

QTY	Description of Item	Size	QTY	Description of Item	Size
35	DRILL SLEEVES	#3 KEY			
1	DRILL SLEEVES	#1 KEY			
1	DRILL SLEEVES	1 - 2			
1	DRILL SLEEVES	2 - 3/4 DRIVE			
1	DRILL SLEEVES	MT3 - J3			
39	DRILL CHUCK	1/4, 3/8, 1/2			

^{*} In description denotes tools requiring calibration

TECHNICAL EXHIBIT J.3-04 GOVERNMENT FURNISHED FURNITURE

12/18/03 C-29

Government Provided Furniture

Building	Room	Description	Quantity
633	Shop Office	Desk	9
633	Shop Office	Computer Desk/Hutch	3
633	Shop Office	5 Drawer Filing Cabinet	8
633	Shop Office	4 Drawer Filing Cabinet	2
633	Shop Office	2 Drawer Filing Cabinet	2
633	Shop Office	Credenza	2
633	Shop Office	Bookcase	6
633	Shop Office	Chairs	19
633	Shop Office	Round Table	1
633	Shop Office	Kitchen Base Cabinet	1
633	Shop Office	Square Table	1
633	Shop Office	Refrigerator	1
633	Shop Office	Storage Cabinets	3
633	Shop Office	White Board	1
633	Shop Office	Cork Board	1
633	Shop Office	Television/VCR Combo	1
633	Shop Office	Magnetic Board	1
633	Forman's Office	Desk	3
633	Forman's Office	2 Drawer Filing Cabinet	1
633	Forman's Office	4 Drawer Filing Cabinet	2
633	Forman's Office	5 Drawer Filing Cabinet	2
633	Forman's Office	Bookcase	3
633	Forman's Office	Draft Table	1
633	Forman's Office	Chairs	5
633	Forman's Office	Refrigerator	1
633	Forman's Office	Cork Board	4
633	Computer Room	Chairs	2
633	Computer Room	Desk	1
633	Computer Room	Storage Cabinets	1
633	Computer Room	Computer Desk/Hutch	1
756	Forman's Office	Desk	7
756	Forman's Office	Computer Desk/Hutch	3
756	Forman's Office	5 Drawer Filing Cabinet	2
756	Forman's Office	2 Drawer Filing Cabinet	7
756	Forman's Office	Bookcase	5
756	Forman's Office	Chairs	5
756	Forman's Office	Square Table	2
756	Forman's Office	Refrigerator	1
756	Forman's Office	Storage Cabinets	1
756	Forman's Office	Cork Board	4
619	Boiler Maintenance Office/Warehouse	Desk	4
619	Boiler Maintenance Office/Warehouse	Computer Desk/Hutch	1
619	Boiler Maintenance Office/Warehouse	5 Drawer Filing Cabinet	10
619	Boiler Maintenance Office/Warehouse	4 Drawer Filing Cabinet	9
619	Boiler Maintenance Office/Warehouse	2 Drawer Filing Cabinet	1
619	Boiler Maintenance Office/Warehouse	Bookcase	5
619	Boiler Maintenance Office/Warehouse	Chairs	8
619	Boiler Maintenance Office/Warehouse	Storage Cabinets	12
619	Boiler Maintenance Office/Warehouse	Cork Board	2
619	Boiler Maintenance Office/Warehouse	Vidmar Brand Tool Cabinets	39
619	Boiler Maintenance Office/Warehouse	Storage Shelves	14
619	Boiler Maintenance Office/Warehouse	Storage Racks	32
619	Boiler Maintenance Office/Warehouse	Blue Print Storage Cabinets	5

TECHNICAL EXHIBIT J.5-01 TEST SITES, SYSTEMS AND SUPPORT EQUIPMENT/FACILITIES

12/18/03 C-30

SITE ID	DESCRIPTION	RESPONSIBLE CODE	BUILDING
	Programs & Platforms	91	
91-03	DDG-51 LBES	9111	77H
91-04	Advanced Propulsion & Power Generation	9112	77H
91-05	LSD-41 LBES	9113, 9325	633
91-07	FODMS Production TAC-4 & User System Integration	9114	77H
4	Total Sites		
	Steam & Auxiliary Systems	92	
92-01	Submarine Life Support	9212	1000
92-03	DDG-15 Test Boiler	9222	633
92-05	Machinery Controls Pneumatic & Electronic	922	1000
92-07	CG 32 & DDG 37 Boiler	9222	633
92-10	Combustion Engineering	9222	633
92-26	Compressed Air System Engineering Site	9214	77H
92-28	Air Conditioning & Refrigeration RDT&E Facility	9213/ 983	1000
92-35	Joint Pressure Vessel	9222	47
92-41	Small Components Test Facility	9233	77H
92-45	CV-60 Test Boiler	9222	633
92-53	Brick Oven Test Site	9222	47
92-55	Waterjet Clean/Wastewater Recycle Test Facility	9222	47
92-56	Brominator Test Site	9233	520
92-60	Vapor Compressor Distiller 9600GPD	9232	77H
92-61	Reverse Osmosis Desalination Unit 12000 GPD	9232	77H
92-62	Steam Generator Auxiliary Facility	922	633
92-63	Vapor Boiler Test Site	9222	633
17	Total Sites		
	Propulsion & Power Systems	93	
93-01	Electrical Test Site	9344	77H
93-05	FFG 7 Diesel Generator	9324	633
93-08	Small Gas Turbine	9353	824
93-12	Gas Turbine Maintenance & Engineering	9332	1000
93-14	Diesel Engine Test	9324, 9325	77H
93-20	Aerosol Separator	9353	1000
93-21	Fuel Nozzle Test Stand	9322/ 9323	77H
7	Total Sites		
	Integrated Logistics & Fleet Maintenance	94	
94-01	Machinery Data Repository	9401	4
1	Total Sites		
	Machinery Information, Sensors & Control Systems	95	
95-01	MHC 51 Machinery Ship Control System (M/SCS) SSA	9554	77H
95-03	AOE 6 CL Software Development & Maintenance Facility	9552	77H
95-07	Shock & Vibration Lab	9532	77H
95-12	Chemical Instrument Test Lab	9532	1000
95-27	Environmental Simulation Test Lab	9532	1000
95-29	Infrared Test Facility	9532	1000

SITE ID	DESCRIPTION	RESPONSIBLE CODE	BUILDING
95-30	Test Operations & Analysis Center (TOAC)	9522	633
95-31	Electric Power System Lab	9522	1000
95-33	Calibration Central Receiving	9531	633
95-38	Mechanical and Acoustic Measurement Lab	9523	633
95-39	Modal Analysis Mech 1MP	9523	1000
95-40	Data Acquisition Test Site	9522	633
95-41	Remote Test Site Support Facility	9522	1000
95-66	Volumetric Flow Calibration Lab	9531	77H
95-68	Test Equipment Logistics Support Facility	9524	1000
95-73	Flowmeter Staging	9531	77H
95-75	Vibration Fleet Support Facility	9523	1000
	Machinery Information, Sensors & Control Systems	95	
95-77	Arc Fault Detection Test Lab	9532	1000
95-78	ElectroMagnetic Compatibility (EMC) Lab	9534	1000
95-85	New Technology Development Support Lab	9534	1000
95-87	Micro Electro Mechanical Systems RDT&E Lab (MEMS)	9534	633
95-89	FFG-7 MCS Support Facility	9556	77L
95-91	Automated Oil Flow Calibration	95305	77H
95-92	ICAS Validation & Verification Lab	9521	1000
95-93	Wireless Technologies Development (WTD) Lab	9534	1000
95-97	Instrument Calibration & Repair Facility	95305	4 E
95-98	New Technology Development Support Lab Annex	9534	1000
95-99	PMP Secure IT Support Facility	9524	633
95-100	Line Synchronous Module (LSM) Cal Laboratory	9531	4
95-101	SISCAL Rotable Pool Lab	9531	1000
30	Total Sites		
	Machinery Integration, Electromagnetics & Networking	96	
96-01	RCSR Repair Site	9633	1000
96-03	Antenna Cycle	9612	1000
96-05	Communications & Control Lab	9621	1000
96-10	Mast Bend Test Apparatus	9612	1000
96-11	Sail Systems Assembly	9633	1000
96-15	Hydrostatic Pressure Site	9621	1000
96-16	Advanced Network Connectivity & Integr Facility	9613	1000
96-17	HDR/ESM Periscope Modification, Test & Screening Site	9622	1000
96-18	Antenna & RCS Measurement Facility	9621	1000
96-21	AN/BRA-24, Buoyant Cable Antenna Handling Sys	9612	1000
96-23	Towed Buoy Facility	9621	1000
96-24	Periscope Screening Facility	9622	1000
	Machinery Integration, Electromagnetics & Networking	96	
96-26	Antenna & Communications Test	9631	1091
96-27	Towed Systems Lab	9612	1000

SITE ID	DESCRIPTION	RESPONSIBLE CODE	BUILDING
96-30	SUBSAFE/Level 1 Material Segregated & Controlled Staging Area	9633	1000
	Fiber Optic Component Test Lab	9631	77H
	Advanced HM&E Connectivity Activity	9631	77H
96-QA	Quality Assurance Room	9613	1000
18	Total Sites		
	Hull & Deck Systems Engineering	97	
	Conveyor Test Site	9730	77H
	Elevator LBES	9770	77H
	Ship Motion Simulator	9770	633
	Torpedo Strikedown System	9773	77H
	Watertight Closure (Hydrostatic Test Tank) Facility	9780	633
	Fork Lift Mast	9771	633
	Hull Outfitting, Watertight Closure Test Site	9782	77H
7 98-01	Total Sites Computer automatic Virtual Environment-CAVE Lab	98	77L
981-01	Auxiliary Automation & Control Prototype Lab	983	77L
	Reduced Scale Advanced Demonstrator	9812	87
	Sensors, Fiber Optics & Electronics Lab	981	77L
	Electrical Equipment R&D Labs A & B	9822	87
	Flex Lab A	9822	87
	Generator Room	9822	87
	Generator Control & Power Distribution Room	9822	87
	Distributed Computing Lab	9822	77L
00= 01	Generator Test Lab	9822	87
	Electric Test Control Room	9822	87
	Shaftline Component Development Facility	9822	87
	High Precision Dimensional Measurement Lab	9822	87
	Fuel Cell Lab	9823	776
	Small Engine RDT&E Facility	9823	77H
	Shipboard Hydraulics Lab Pipe Fatigue Test Facility	983 983	87
	Air Conditioning & Refrigeration RDT&E Facility	983	87
	Advanced Fan Development Facility	983	1000 87
	Automated Low Pressure Air Facility	983	
	Power Electronics Lab	984	87
	Electric Propulsion R&D Lab	984	87
	Current Collector Technologies Lab	984	77L
23	Total Sites	304	116
	Large Scale Machinery Anechoic Chamber	992	87
	Fluid Systems Machinery Silencing Lab	992	87
	Large Scale Machinery Ante-Room	992	87

SITE ID	DESCRIPTION	RESPONSIBLE CODE	BUILDING
99-04	Depth Control Valve Silencing Facility	993	87
99-05	Resilient Mount Test Facility	992	77L
5	Total Sites		
62-21	Damage Control (DC) Sensors Systems Engineering Site	621	1000
63-10	Environmental Quality Systems ISE Test Site	631 / 635	1000
62-43	Materials Engineering, Fluid Processes Laboratory	622	619
62-50	Metallics/Non-Metallics Materials & Tribology Facility	622	1000
62-53	Marine Coatings & Corrosion Facility	624	1000
62-57	Cathodic Protection Test Facility	624	1000
62-64	Non-Destructive Test Laboratory	623	1000
63-01	Compensated Fuel Ballast Ship/Full Scale	632	633
8	Total Sites		
124	Grand Total Sites		

TECHNICAL EXHIBIT J.5-02 MACHINE SHOP EQUIPMENT

12/18/03 C-31

Machine Shop Equipment

Building	Room	Description	Serial	Manufacturer	Model
633	Machine Shop	Bridgeport Milling Machine		Bridgeport	VZXT
633	Machine Shop	Computer Numerical Control BridgePort	Bridgeport		138716
633	Machine Shop	Milling Machining Series II		Bridgeport	A1935586
633	Machine Shop	Horizontal Mill		Kearney & Trecker	430-TFDP
633	Machine Shop	Vertical Mill		Kearney & Trecker	307S-12
633	Machine Shop	Rockford Shaper		Rockford	28"
633	Machine Shop	Lathe		Lodge & Shipley	20i3
633	Machine Shop	Open Spindle Lathe		Le Blond	808-97-S
633	Machine Shop	Lathe		Le Blond	WH-80A-97-S
633	Machine Shop	25" Swing Lathe		Monarch	612
633	Machine Shop	12.5" Swing Lathe		Monarch	
633	Machine Shop	12" Lathe		Pratt & Whitney	CM-1694
633	Machine Shop	Band Saw		Peerless	3000 MH
633	Machine Shop	Band Saw		Do All	36W
633	Machine Shop	Band Saw		Lian Feng	ABS-12A
633	Machine Shop	Grinder		Brown & Sharpe	824 Micromaster
633	Machine Shop	Radial Drill Press - 4 Arm - 13" Column		Carlto	3A
633	Machine Shop	Plate Shear		Cincinnati Shaper Co.	16880
633	Machine Shop	Radial Drill Press		Gilbert Machine Co.	3413-03322
633	Machine Shop	Iron Worker		W. A. Whitney Mfg. Co.	606-052-8971
633	Machine Shop	Gasket Punch		Rotex Punch Co. Inc.	2350 CALF
633	Machine Shop	Sheet Metal Brake		Drems & Krump Mfg.	116658
633	Machine Shop	Hydraulic Bender, 25 Ton Capacity		Enerpac-Butler	68695-000083
633	Machine Shop	Horizontal Lathe		Kearney & Trecker	35-8207
633	Machine Shop	Rolling Machine		Niagara	none
633	Machine Shop	Band Saw		Marvel, Armstrong-Blum	81/M9 D-1405
756	Shop Area	Band Saw		Armstrong-Blum	81/M3 D-448
756	Shop Area	Small Blue Iron Worker		Scotchman Industries	none
756	Shop Area	Bench Grinder, Type 5U - HP 3, 1739 RPM		Hisey & Wolf	11
756	Shop Area	Drill Press, 890 RPM, HP-3, 440V		Cincinatti-Brickford	B-1774
756	Shop Area	20" Drill Press, 9 Speed		Dayton Elec. Mfg. Co.	3Z919A
756	Shop Area	Small Bench Grinder, 10", 1725 RPM, 220V		US Electrical Tool Co.	90366

Machine Shop Equipment

756	Shop Area	Iron Worker	Piranha	P70-081
756	Shop Area	Small Band Saw	Armstrong-Blum	none

TECHNICAL EXHIBIT J.5-03 FUEL TANK INVENTORY

12/18/03 C-32

	PA DEP ID NUMBER	OWNER/ OPERATOR	LOCATION	PRODUCT	CAPACITY
Fu	iel Barges	SSES	Reserve Basin, West Side of Building 633	-	-
1	016A	SSES	Tank Farm 951-17	Diesel #2	15,000
2	017A	SSES	Tank Farm 951-18	Diesel #2	15,000
3	018A	SSES	Tank Farm 951-19	Diesel #2	15,000
4	019A	SSES	Tank Farm 951-20	Diesel #2	15,000
5	020A	SSES	Tank Farm 951-21	Diesel #2	15,000
6	021A	SSES	Tank Farm 951-22	Diesel #2	15,000
7	022A	SSES	Tank Farm 951-23	Diesel #2	15,000
8	023A	SSES	Tank Farm 951-24	Diesel #2	15,000
9	024A	SSES	Tank Farm 951-25	Diesel #2	15,000
10	025A	SSES	Tank Farm 951-26	Diesel #2	15,000
11	033A	SSES	Tank Farm 950 JP-5	Jet Fuel JP-5	20,000
12	047A	SSES	Building 77H (Inside 2nd floor)	Diesel #2	5,000
13	068A	SSES	Building 779 Tank Farm (North end)	Diesel #2	175,000
14	069A	SSES	Building 779 Tank Farm (South end)	Diesel #2	175,000
15	070A	SSES	Building 779 Tank Farm (East end)	Diesel #2	5,000
16	77H-4	SSES	Building 77H	Diesel #2	500
17	77H-5	SSES	Building 77H	Diesel #2	500
17	- Total Tanks			Total Capacity -	531,000

RDTE Support Services

TECHNICAL EXHIBIT J.5-04 RIGGING EQUIPMENT

12/18/03 C-33

Wire Slings			les, Links & Rings	Chain Hoists and Come-Alongs		"A" Frames		Beam Clamps		Flat Nylon Slings & Straps	
ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-298	1/2" X 2'	N-1	1/4"	P/H Navsses 11	1 Ton	26 PG 1	2 Ton	BC-0	3 Ton	45	2"
NS-299	3/8" X 10'	N-2	1/4"	CM-Nav-IPMP-2-6	1 Ton			BC- 02	3 Ton	46	2"
NS-1	5/8" X 10'	N-3	1/4"	CM-633-7	1 Ton			BC- 03	3 Ton	47	2"
NS-2	5/8" X 10'	N-4	1/4"	CM-77H-8	1 Ton			BC- 04	3 Ton	48	2"
NS-3	5/8" X 10'	N-5	1/4"	CM-NAVSSES-12	1 Ton			BC- 05	2 Ton	49	1"
NS-4	5/8" X 10'	N-6	1/4"	CM-603	1/2 Ton			BC- 06	2 Ton	50	1"
NS-5	5/8" X 10'	N-7	1/4"	NAV 31	5 Ton			BC- 07	2 Ton	51	1"
NS-6	1/2" X 10'	N-8	1/4"	CM-904	2 Ton			BC- 08	1 Ton	52	1"
NS-7	1/2" X 10'	N-9	1/4"	CM-903	2 Ton			BC- 09	3 Ton	53	1"
NS-8	1/2" X 20'	N-10	1/4"	VS-C-03	2 Ton			BC- 10	2 Ton	54	1"
NS-9	1/2" X 20'	N-11	5/8"	CM-901	2 Ton					55	1"
NS-10	5/8" X 20'	N-12	5/8"	CM-902	2 Ton					56	1"
NS-11	5/8" X 20'	N-13	5/8"	NAVSEA-1	3 Ton					57	1"
NS-12	5/8" X 20'	N-14	5/8"	NES-006	2 Ton					58	1"
NS-13	5/8" X 20'	N-15	5/8"	CM-06-3	1/2 Ton					59	1"
NS-14	5/8" X 20'	N-16	5/8"	CM-604	1/2 Ton					60	1"
NS-15	1/2" X 25'	N-17	5/8"	LN 0001	1-1/2 Ton					61	1"
NS-16	1/2" X 25'	N-18	5/8"	LN 0004	1-1/2 Ton					62	1"
NS-17	5/8" X 15'	N-19	5/8"	LN 0058	1 Ton					63	1"
NS-18	5/8" X 15'	N-20	5/8"	LN 0031	1 Ton					64	1"

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-19	1/2" X 10'	1049	7/8"	LN 0013	2 Ton					65	1"
NS-20	1/2" X 10'	1050	7/8"	NSWC NAV 072	1/2 Ton					66	1"
NS-21	3/8" X 20'	H-1	1/2"	NSWC NAV R-01	1/2 Ton					67	2"
NS-25	5/8" X 20'	H-5	1/2"	NSWC NAV R-05	1 Ton					80	1"
NS-26	5/8" X 20'	H-6	1/2"	NSWC NAV R-06	1 Ton					81	1"
NS-27	5/8" X 12'	H-7	1/2"	NSWC NAV R-07	1/2 Ton					82	1"
NS-28	5/8" X 12'	H-8	1/2"	NSWC NAV R-08	1/2 Ton					83	1"
NS-29	5/8" X 12'	H-9	1/2"	72 AP-498	1 Ton					84	1"
NS-30	5/8" X 12'	H-10	1/2"	NSAA-16	1 Ton					85	2"
NS-31	3/8" X 30'	H-11	1/2"	NSWC-	1 Ton					86	2"
NS-33	7/8" X 8'	H-12	1/2"	NAVSEA #2	3 Ton					87	2"
NS-34	7/8" X 8'	H-13	1/2"	R-05	1Ton					88	2"
NS-35	7/8" X 8'	H-14	1/2"	R-06	1Ton					89	2"
NS-36	7/8" X 8'	H-15	1/2"	R-03	1Ton					90	1"
NS-37	7/8" X 6'	H-16	1/2"	HARRINGTON 87- C1	1Ton					91	1"
NS-38	7/8" X 6'	H-17	1/2"	YALE LN0013	2 Ton					92	1"
NS-39	7/8" X 6'	H-18	1/2"	YALE LN0058	1 Ton					93	1"
NS-40	7/8" X 6'	H-19	1/2"	YALE LN0031	1 Ton					94	1"
NS-41	3/4" X 6'	H-20	1/2"	YALE LN0004	1-1/2 Ton					95	1"
NS-42	3/4" X 6'	S-1	7/16"	YALE LN0001	1-1/2 Ton					96	1"
NS-43	3/4" X 6'	S-2	7/16"	CM DL-1	3/4 Ton					97	1"
NS-44	3/4" X 6'	S-3	7/16"	CM DL-2	3/4 Ton					98	1"
NS-45	1" X 25'	S-4	7/16"	ACCO D1-3 (ALUM)	3/4 Ton					99	1"
NS-46	1" X 25'	S-5	7/16"	HARRINGTON 8702	1 Ton					100	1"
NS-47	1" X 35'	S-6	7/16"	HARRINGTON 8701	1 Ton					1	Flat
NS-48	1" X 35'	S-7	7/16"	HARRINGTON 8703	1 Ton					2	Flat
NS-49	1/2" X 6'	S-8	7/16"	CM-8704	3/4 Ton					3	Flat

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-53	3/4" X 12'	S-12	7/16"	NAVSSES 12	1 Ton					7	Flat
NS-54	3/4" X 12'	S-13	7/16"	77H 7	1 Ton					8	Flat
NS-55	3/4" X 6'	S-14	7/16"	NAVSEA 2	1/2 Ton					9	Flat
NS-56	3/4" X 6'	S-15	7/16"	CM 77H 1	3/4 Ton					10	Flat
NS-57	3/4" X 6'	S-16	7/16"	RIG A1	3/4 Ton					11	Flat
NS-58	1-1/2" X 30'	S-17	7/16"	77H 3	1-1/2 Ton					12	Flat
NS-59	1-1/2" X 30'	S-18	7/16"	633 2	3/4 Ton					13	Round
NS-60	1-1/2" X 30'	S-19	7/16"	CM 77H 2	3/4 Ton					14	Round
NS-61	1/2" X 15'	S-20	7/16"							15	Round
NS-62	1/2" X 15'	F-1	5/16"							16	Round
NS-63	1/2" X 20'	F-2	5/16"							17	Round
NS-64	1/2" X 20'	F-3	5/16"							18	Round
NS-65	1/2" X 25'	F-4	5/16"							19	Round
NS-66	1/2" X 15'	F-5	5/16"							20	Round
NS-67	1/2" X 10'	F-6	5/16"							BS-1	Round
NS-68	1/2" X 8'	F-7	5/16"							MS-1	Round
NS-69	1/2" X 8'	F-8	5/16"							BS-2	Flat
NS-70	1/2" X 8'	F-9	5/16"							MS-2	Flat
NS-71	1/2" X 6'	F-10	5/16"							21	Flat
NS-72	1/2" X 6'	F-11	5/16"							22	Flat
NS-73	1/2" X 6'	F-12	5/16"							23	Flat
NS-74	1/2" X 10'	F-13	5/16"							24	Flat
NS-75	1/2" X 10'	F-14	5/16"							25	Flat
NS-76	1/2" X 10'	F-15	5/16"							26	Flat
NS-77	1/2" X 10'	F-16	5/16"							27	Flat
NS-78	1/2" X 10'	F-17	5/16"							28	Flat
NS-79	1/2" X 10'	F-18	5/16"							29	Round
NS-84	1/2" X 10'	F-23	5/16"							34	Round
NS-85	1/2" X 10'	F-24	5/16"							35	Round
NS-86	1/2" X 10'	F-25	5/16"							36	Round
NS-87	1/2" X 10'	F-26	5/16"							37	Round

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-88	1/2" X 10'	F-27	5/16"							38	Round
NS-89	1/2" X 10'	J-1	3/8"							39	Round
NS-90	1/2" X 10'	J-2	3/8"							40	Round
NS-91	1/2" X 10'	J-3	3/8"							41	2"
NS-92	1/2" X 10'	J-4	3/8"							42	2"
NS-93	1/2" X 10'	J-5	3/8"							43	2"
NS-94	1/2" X 15'	J-6	3/8"							44	2"
NS-95	1/2" X 9'	J-7	3/8"							31	2"
NS-96	1/2" X 9'	J-8	3/8"							9	4"
NS-97	3/8" X 30'	J-9	3/8"							10	4"
NS-98	3/8" X 25'	J-10	3/8"							P-228	2"
NS-99	1/2" X 4'	J-11	3/8"							32	2"
NS-100	1/2" X 4'	J-12	3/8"							633-1	1"
NS-101	1/2" X 4'	J-13	3/8"							633-2	1"
NS-102	1/2" X 4'	J-14	3/8"							633-3	1"
NS-103	1/2" X 4'	J-15	3/8"							#10-1	3"
NS-104	1/2" X 4'	J-16	3/8"							101063	6"
NS-105	1/2" X 4'	J-17	3/8"							101062	6"
NS-106	1/2" X 4'	J-18	3/8"							101065	1"
NS-107	1/2" X 3'	J-19	3/8"							101064	1"
NS-108	1/2" X 3'	J-20	3/8"							101067	1"
NS-109	1/2" X 4'	J-21	3/8"							101066	1"
NS-113	1/2" X 6'	J-25	3/8"							NS-23	2"
NS-114	1/2" X 5'	J-26	3/8"							NS-38	2"
NS-115	3/8" X 15'	J-27	3/8"							NS- 341	2"
NS-116	1/4" X 6'	J-28	3/8"								
NS-117	1/2" X 20'	J-29	3/8"								
NS-118	3/8" X 10'	J-30	3/8"								
NS-119	1/2" X 6'	D-1	3/4"								
NS-120	3/8" X 10'	D-2	3/4"								

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-121	3/8" X 15'	D-3	3/4"								
NS-122	3/8" X 15'	D-4	3/4"								
NS-123	3/8" X 10'	D-5	3/4"								
NS-124	3/8" X 15'	K-5	3/4"								
NS-125	1/2" X 10'	K-6	1/2"								
NS-126	1/2" X 10'	K-7	3/4"								
NS-127	1" X 10'	NH-	5/8"								
		149									
NS-128	1" X 10'	USA-1	5/8"								
NS-129	1" X 8'	CL-10	5/8"								
NS-130	1" X 25'	UK-01	5/8"								
NS-131	1" X 25'	NH-	4-3/4"								
NS-132	1" X 10'	D-4	4-3/4"								
NS-133	7/8" X 8'	NH-66	7/8"								
NS-134	7/8" X 8'										
NS-135	7/8" X 15'										
NS-136	7/8" X 15'										
NS-137	3/4" X 20'										
NS-141	5/8" X 30'										
NS-142	3/8" X 15'										
NS-143	1/2" X 6'										
NS-144	1/2" X 5'										
NS-145	3/8" X 8'										
NS-146	1/2" X 4'										
NS-147	1/2" X 4'										
NS-148	1/4" X 1'										
NS-149	1/4" X 1'										
NS-150	1/4" X 1'										
NS-151	1/4" X 1'										
NS-152	1/2" X 3'										
NS-153	1/2" X 3'										

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-154	1/2" X 4'										
NS-155	1/2" X 6'										
NS-156	1/2" X 6'										
NS-157	1/2" X 10'										
NS-158	5/8" X 5'										
NS-159	1/2" X 6'										
NS-160	5/8" X 4'										
NS-161	1/2" X 4'										
NS-162	1/2" X 4'										
NS-163	5/8" X 8'										
NS-164	1/2" X 8'										
NS-165	5/8" X 15'										
NS-166	5/8" X 15'										
NS-167	1/2" X 10'										
NS-171	1/2" X 23'										
NS-172	1/2" X 23'										
NS-173	5/8" X 30'										
NS-174	5/8" X 30'										
NS-175	5/8" X 12'										
NS-176	5/8" X 12'										
NS-177	1" X 10'										
NS-178	1" X 10'										
NS-179	1" X 10'										
NS-180	1" X 10'										
NS-181	1" X 6'										
NS-182	1" X 6'										
NS-183	1" X 15'										
NS-184	1" X 15'										
NS-185	1" X 15'										
NS-186	1" X 15'										

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-187	5/8" X 20'										
NS-188	5/8" X 20'										
NS-189	1/2" X 6'										
NS-190	3/8" X 2'										
NS-191	1/2" X 20'										
NS-192	1/2" X 20'										
NS-193	1/2" X 20'										
NS-194	1/2" X 20'										
NS-195	1/2" X 20'										
NS-196	1/2" X 20'										
NS-197	3/8" X 20'										
NS-201	1/2" X 30'										
NS-202	1/2" X 30'										
NS-203	1/2" X 6'										
NS-204	1/2" X 6'										
NS-205	1/2" X 6'										
NS-206	1/2" X 25'										
NS-207	3/4" X 10'										
NS-208	3/4" X 6'										
NS-209	1" X 15'										
NS-210	1" X 15'										
NS-211	3/4" X 20'										
NS-212	3/4" X 20'										
NS-213	3/4" X 20'										
NS-214	3/4" X 20'										
NS-215	1" X 10'										
NS-216	1" X 10'										
NS-217	1" X 10'										
NS-218	1" X 10'										
NS-219	1/2" X 5'										
NS-220	3/8" X 8'										

ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description	ID#	Description
NS-221	1/2" X 10'										
NS-222	5/8" X 40'										
NS-223	3/8" X 35'										
NS-224	3/8" X 28'										
NS-225	3/8" X 4'										
NS-226	1/2" X 10'										
NS-227	1/2" X 10'										
NS-231	1/2" X 2'										
NS-232	3/8" X 10'										
NS-233	1/2" X 4'										
NS-234	1/2" X 4'										
NS-235	1/2" X 4'										
NS-236	7/8" X 10'										
NS-237	1/2" X 10'										
NS-238	1/2" X 10'										
NS-239	1/2" X 10'										
NS-240	1/2" X 10'										
NS-241	1/2" X 10'										
NS-242	7/8" X 10'										
NS-243	7/8" X 10'										
NS-244	1/2" X 8'										
NS-245	3/8" X 5'										
NS-246	5/8" X 10'										
NS-247	7/8" X 30'										
NS-248	3/4" X 20'										
NS-249	1/2" X 6'										
NS-250	1/2" X 20'										
NS-251	1/2" X 15'										
NS-252	5/8" X 16'										
NS-253	1" X 8'										

TECHNICAL EXHIBIT J.6-01 REQUIRED REPORTS

12/18/03 C-34

Report Title	PWS Paragraph	Frequency	Day or Date Due
Worker Injury report	C.1.7.1.1	As Required	If MEO - 24 hrs of incident / If Contractor - As soon as report is complete
Preventive and Corrective Maintenance	C.5.1.3.4	In accordance with 4790.4C	In accordance with 4790.4C
Estimated Fuel Reorder	C.5.2.3	As Required	NLT 14 calendar days of projected usage
Shipper's Fuel Analyses	C.5.2.3.1	Each delivery	Prior to receipt of fuel
Input to Storage Tank Management Plan	C.5.2.3.5	Annually	1-Oct
Tank Inventory	C.5.2.3.5.1	Annually	1-Oct
Tank Inspection	C.5.2.3.5.2	Weekly	Last workday of week
Barge Inspection	C.5.2.3.5.3	Weekly	Last workday of week
Disposal of Rigging Equipment	C.5.2.4.6	As Required	Within two days of disposal